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THINKING TOWARDS RELIGION

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To
Margaret and Douglas Hewitt

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CHAPTER I

WHY PHILOSOPHY ?

MAN as the creature of blind forces, at the mercy of accidents, his life part of a meaningless struggle which will end, for the individual, with death, and for the race when the earth is no longer fit to support life—this is for many the only possible conclusion to be drawn from present-day knowledge. The idea had exercised a great power of attraction as long as it was felt to express the triumph of modern science in opposition to all previous beliefs. Now it begins to appear rather strange that such a thought could ever have been attractive; lack of any meaning is obviously unsatisfactory if one applies it, with all its implications, to one's own life. There are many who are longing to find a surer foundation to their lives, and they are aware of the fact that religion could provide such a foundation, but they are cut off from religion because they cannot still their doubts by cheating themselves intellectually. Faith in God may be desirable, but is it intellectually honest ?

To answer this question should be the task of philosophy. But here the difficulty arises that philosophy seems to have lost all significance for, and connection with, real life. For this reason few are willing to pay attention to it. Yet it can be easily seen how the question could be answered in a philosophical way. It is part of the task of the philosopher to investigate the relationship between thought and experience, to ask how we arrive at valid conclusions about what we experience, how we gain knowledge, in which way we usually find truth and what truth really means. Such an investigation would implicitly answer the question whether or not faith is compatible with honest thinking and with the knowledge we possess.

This is the investigation I have attempted in this book. It is no part of my purpose to examine particular kinds of faith, nor do I intend to give a survey of philosophical thought or an introduction to a particular school of philosophy. My endeavour is to rehabilitate philosophy by continuing what has been begun here and there, namely, by concentrating upon those aspects of philosophical thought which are relevant to the personal and historical situation with which we have to deal. I hope to show that this can be done by undertaking the tasks just indicated; that by thinking about philosophical questions from this viewpoint we can bring philosophy closer to the problems which actually matter in our lives, including the all-important problem of an honest faith. Unless philosophy is of consequence to us it cannot be taken seriously, and if it cannot be taken seriously it fails in its self-appointed task.

The main reason for the decline of philosophy in our age is the rise of modern science. Before the recent multiplication of scientific discoveries, philosophy was held in considerable esteem by educated people. It was thought that philosophers would provide the answers to the major questions which puzzled civilized man, such as the true nature of the universe, the relationship between mind and body, the meaning of life or the justification of a belief in God. Today, however, there is an unmistakable shift of interest; the majority of us look to science for the solutions to the mysteries of the universe and the problems attending the achievement of a better world. This is partly because science has made immense advances in revealing to us the structure and behaviour of matter, and because the application of scientific knowledge has developed so rapidly as to virtually transform the conditions under which we lead our lives. Moreover, the expectation and respect with which science is now regarded is also partly due to the confidence which its methods inspire. The successes of science have been so remarkable that we are apt to suppose that there are no limits to the achievements of which it is capable. This

assumption and the assumption that scientific methods are superior to other methods of arriving at definite knowledge we shall have to look at again.¹ But there is yet a third assumption which, while it also contributes to the ascendant position of science, points to questions about human experience that belong to the province of philosophy rather than that of science.

It is obvious to everyone that the findings of the scientist are frequently put to valuable use. Very many examples, from electric light to penicillin, immediately spring to mind. Benefits resulting from the findings of a philosopher would obviously have to be of a very different kind. But in this practical-minded age of ours we tend to think of usefulness in terms of tangible successes, healing diseases, reducing mortality, and perhaps primarily in terms of devices which will minimize effort and reduce the amount of time required to perform a given task. Thus our third popular assumption about science is that it can be of supreme service in our daily lives. Suppose, however, that instead of asking "How can I save time?" we ask "What do I want with the time that I save?" we can see that we have changed our ground and are no longer in the tight grip of the world of technology. Nor can science supply an answer to this second question; for that, we are thrust back on the resources of our own minds.

Like science philosophy deals in generalisations, that is, statements which have a universal application, but unlike science philosophy can properly concern itself with the world of persons as distinct from the human species and its categories. Thus when we ask a question which requires a personal answer we are closer to the realm of philosophy than to the realm of science, and in the course of this book I hope to show that philosophy can illuminate the very matters which concern us most intimately and from which arise the problems that perplex us most.

So far, I have attributed the diminished interest in

¹ See Chapter IV.

philosophy to the prestige which science has won for itself during the past century. But philosophers and the whole development of philosophy itself must in part also bear the responsibility for this state of affairs. On the one hand, it is partly the fault of philosophers because a large and important group of them have succumbed to the temptation to make philosophy seem more reliable and more respectable by imitating the methods of science. In this way they have chiefly succeeded in discrediting it by transforming it into another special science with a technique and language which is in a high degree esoteric, and which is therefore of small interest to anyone outside the circle of its devotees. On the other hand, it is partly the fault of the development of philosophy itself, because this kind of philosophy is the newest guise for one of its two age-old types which can be traced back to the time of Plato and Aristotle and which have never been successfully combined.

It is now generally recognized that the weakness of philosophy lies precisely in those achievements which were considered the most important right up to the end of the nineteenth century—that is, in the all-inclusive unitary systems, explaining the whole of existence by a single fundamental concept. There are—starting with Plato and Aristotle and followed up by similar metaphysical systems¹ throughout the ages—two constant types of philosophy. The one, idealism, is built upon ideas, the mind, upon a spiritual reality, and matter is seen as its product or projection. The other begins by accepting sense-experience as the only reliable basis of knowledge (a knowledge which has to be developed by pure logical elaboration of this experience) and this way leads finally to materialism where matter alone is real and the mind a mere by-product of material processes. The very fact that these two contradictory types went on existing side by side—with no criterion but individual inclination as means of deciding

¹ I use this term for explanations of the ultimate nature of reality, whether or not they include the supernatural.

which type should be accepted—seems almost sufficient to prove that something was wrong with philosophical thinking.

The situation is changed for us in that all these systems have been discarded; it is now beyond dispute that none of them—from Platonic idealism to Marxist materialism—can survive a thorough philosophical scrutiny. The survival and great influence of Marxism is due, not to its philosophical validity, but to political and pseudo-religious motives. Although there are many valuable single elements in most of these systems—including Platonic idealism and Marxism—it is necessary to recognize that as systems they have broken down. I think it is now generally realized that, outside religion, we know very little of the spirit (and some may be tempted to add in parenthesis “whatever this word may mean”) or even of the true nature of the human mind. It is equally clear that we know just as little of the true nature of matter, for to describe it as energy only results in the new problem of accounting for material energy. Obviously our knowledge can never become complete enough to explain everything; the concepts upon which these imposing systems were founded only seemed all-inclusive because the concepts were undefined, wrongly defined, or empty. Moreover, the origin of mind or matter, which would have to be accounted for in a complete explanation, remained veiled in darkness. These concepts were taken for granted because, both in Ancient Greece and after the Middle Ages, philosophy developed when religion declined; it developed as an attempt to find a substitute for religion, and the systems drew life from the preceding conception of a god or from their opposition to it. As the all-inclusive nature of religion had never been questioned, the systems which stemmed from it were accepted as possessing the same attribute.

Despite the irrefutable proofs that all-inclusive systems are not tenable our thinking tends to continue in these channels. This can be seen in the part science has played in

the rejection of the systems. The advance of science in the nineteenth century made many philosophers believe that, at last, a definite all-inclusive system could be built on the secure foundations of scientific knowledge. Monism, in which everything was explained by a single concept such as atom, or force, or evolution, seemed to guarantee that scientific materialism could answer all the questions. But the further advance of science, showing more clearly the complexity of the material world and leading to more and more specialisation, destroyed that dream too. Nevertheless, a unitary way of thinking has been widely accepted, and even though there is no longer any hope of creating a system, many believe scientific thinking and scientific methods to be the only correct way of dealing with all experience. This belief, which was and still is popular, has been undermined, but not fully checked, by the findings of science itself. Determinism (the theory that all events, including human action, are determined by a necessity expressed in unchanging laws) has been modified in some scientific theories, and thus there seems to be room for the undeniable experience of human freedom of choice and decision. The weakened position of determinism—which seems to diminish the contrast between the deterministic view and the feeling of human freedom—has, however, only led to confusion and, as we shall see, this important problem not only remains unsolved, but is more intractable than ever.

The fact that a unitary way of thinking is as inadequate as the systems which preceded it is indicated by the re-emergence of the two constant types of philosophy under new guises. It can be seen already that both types have once more failed.

On the one hand there was, until very recently, Logical Positivism, up to the present time the last development of that type of philosophy which relied on sense experiences and the logical treatment of sense data. Logical Positivism has broken down, because, to be consistent, its adherents

had to dismiss moral and religious statements as incapable of verification and discussion, and thus as "meaningless" and "merely private". They accepted only what, in the last resort, could be verified by the senses. That this way of thinking had to be given up confirms that the experience of freedom, as we have just said, can hardly be denied. As a result of this impasse the school then developed into that of Analytical Philosophy which includes statements about freedom, morality, and even belief in God, in its analysis. But as these philosophers wanted to preserve the methods of Logical Positivism, they have narrowed the task of philosophy to a purely technical investigation of logic and language. Now correct logic and the clarification of language are necessary for correct thinking; but these special subjects, concerned as they are with methods alone, cannot possibly represent the whole field of philosophy. To be of use, methods must be applied to the right subjects in the right way; developed in isolation, they only distort our thinking by over-emphasizing and over-developing what is, in fact, a subordinate element in a wider context. They can be judged and developed in the right way only if we know this wider context; the method as such cannot even tell us how to apply it. If a doctor wishes to treat a patient he must know the nature of various diseases, what causes them and how they are likely to develop, before he can decide what method of treatment to use. Similarly, it is of no use logically to analyse moral and religious statements, unless we first try to discover something about the nature of morality and religion.

On the other hand, there is Existentialism. It is probably a promising sign that, for the first time in European history, this other type of philosophy is not idealistic; what it took over from idealism is its most positive element—the emphasis on inner experience. Thus, in this movement away from idealism may lie the chance of a departure from the two types. Yet Existentialist philosophers also attempt to create an all-inclusive, unitary way of thinking, and it is in

this respect that they too fail. There are, it is true, many different schools of Existentialism, which makes it difficult to generalize, but undoubtedly most of these philosophers aim at a unitary way of thinking and consider a purely personal approach, based on feeling, as the only way to knowledge, be it knowledge of existence or of Christianity. This forces them to disregard science which, after all, is an indispensable part of our lives and very much in need of consideration; and although many single valuable results have been achieved by the Existentialists, their preoccupation with feeling has frequently led them to adopt an excessively individual treatment of reality which they have not succeeded in correcting. Indeed, this is hardly possible if there is no objective counter-weight to purely subjective experience.

If not only the systems but also the attempt to achieve a unitary way of thinking were given up, this could lead to a complete and most fruitful liberation of philosophy, freeing the philosopher from the need to fit all his thought into a fixed framework and allowing him to approach each problem in terms and by methods dictated by the problem itself. There is no doubt that metaphysical systems must be dismissed, but also no doubt that metaphysical thinking must be preserved. Philosophy cannot possibly be of any general importance unless the philosopher adequately discusses, on the one hand, the problem and scope of freedom and necessity, of moral responsibility, and of the significance of faith; and on the other, the significance of science in a human context, and whether and how feeling can be a reliable organ of knowledge. Only with this range can he hope to resolve the problem underlying the constant recurrence of the two types of philosophy. This problem, in a different form, is still one of the most disturbing in the present-day world, for we still do not know how to reconcile the determinism inherent in science with the freedom which seems so real in our experience. But, to be successful, the philosopher must obviously allow each side to make its own

proper impact upon his thought and see where this leads him, without prejudicing the outcome by aiming at a new comprehensive unity.

It is here that we can see particularly clearly how much the problems of philosophy are, in fact, identical with those which actually face us in life. The problem of the two types of systems has been dealt with, up to now, mainly in philosophical terms; but it can be easily recognized as a general problem of human experience.

If determinism is followed to its logical conclusions it means that our behaviour towards other people, our bearing in the face of adversity—in short, all our actions—need not concern us, because they are automatically produced by causes upon which we have no influence, and thus there is nothing we can do to modify or alter them. It also means that we cannot even discuss truth, because our thoughts, too, are pre-determined by such factors as inheritance, physiological make-up, social conditions, upbringing, and so on. Moreover, although we think ourselves free to make decisions, to develop ideas and to discuss them, determinism logically applied must describe such convictions as so many illusions. Of course, most people revolt against these logical conclusions and it would probably be difficult to find anybody who really and literally believes them. Our experience tells us too definitely that they are wrong; we know for certain that our actions and thoughts are not pre-determined to such an extent. But usually this revolt is of little consequence. The most common solution, so far as I can see, is a refusal to face the problem; far too many people seem to live as it were in two separate compartments. When they embark upon abstract thought (without being concerned with themselves or with people they know) they do so as if determinism did include human behaviour, actions and thinking; when they embark upon actions (and *are* concerned with themselves and people they know) they do so as if they were free to choose and to decide and were responsible for their choices and decisions.

This, however, will not do. The attitude has produced the situation already characterized as that in which practical gains are valued more highly than wisdom, and where man has learned how to save time, but hardly how to make good use of it. More serious perhaps is the weakening of all standards of behaviour; although, apparently, determinism is not allowed to intrude into our private lives, its acceptance in theory has made us very uncertain when we want to own to and defend the responsible choices which we actually make. The fact that material benefits are more readily appreciated than benefits in terms of a full personal life is—at least partially—due to this uncertainty. In comparison, material things appear so much more solid and reliable.

Nor will it do to disregard determinism completely and to rely exclusively on the freedom we experience and exercise. It is equally wrong to say that we are entirely free, that we can unconditionally do what we consider to be right, that we can fully live up to our ideals, and that it is simply our fault if we fail. The elements which have just been enumerated—biological inheritance, social conditions and so on—are undoubtedly very powerful, and so are external compulsions of many kinds which we are unable to defeat. Nor can the material necessities of life always be acquired in the way we should choose. Idealism has broken down under the impact of science, but “the idealist” has survived: he is the man who believes that everything could be put right in a very simple way if only some cherished principle were adopted; the man who refuses to see our condition as it really is and ascribes all failure either to blindness or to wickedness. Immeasurable harm has been done in that way too; for it is this kind of defence which all too frequently makes the right principles appear so utterly unrealistic. Indeed, the idealist achieves the opposite of what he means to achieve; his lofty struggle seems to confirm the view that there is no alternative to materialism.

To a large extent, the conflict between determinism and

freedom is basic to the investigation with which this book is concerned, and since, as has been mentioned, recent developments in science have added to the confusion surrounding the conflict, we should, it seems, attempt first to see the problem in relation to science.

New developments in modern physics, which are gradually gaining influence in other branches of science, have made the task of characterizing science more difficult than was the case a few decades ago. These developments have, to a large extent, removed the dogmatic insistence upon complete determinism which had hitherto prevailed; necessity has been replaced by probability, and the hope of complete knowledge by the recognition of human limitations, which put its achievement beyond our grasp. Even a complete knowledge of purely physical phenomena is seen to be impossible. This change (which will be discussed later) is of great importance in one respect: it leaves room for a different approach in the human sphere; but it is rather misleading—more so than the older views—in another respect. The fact that rigid determinism is now renounced by the physicists appears to imply that deterministic methods have been abandoned. But the scientific approach cannot change fundamentally; a large measure of determinism is properly and inherently essential to science. A scientist must try, as the methods of science dictate, to seek a necessary connection between cause and effect. If he has to be content with probability, he must at least try to find an overwhelming probability and this, for all practical purposes, is not essentially different from necessity. The lighting of a fire and the detonation of a hydrogen bomb must both work, and the aim is to make the more complicated process just as manageable as the simple one. Scientific thinking is bound to be directed towards establishing a reliable knowledge of causal relationship, even though the attempt to find an all-inclusive law, which makes events entirely predictable, has had to be abandoned.

The misapprehension that the fundamental attitude of

science has changed is strengthened by the greater caution which especially nuclear physics demands. This has led the scientist to use a language which seems to lend itself to include more readily the sphere of human affairs. There is Heisenberg's "uncertainty principle" and, in quantum physics, the attempt to explain undetermined actions, both of which can easily lead to the belief that our uncertainty about the causes of the behaviour of the electron could help us to understand our freedom of choice and decision. There is the elaboration of the theory of evolution by adding more and more subtle details, which makes it appear possible to see a spiritual evolution as its direct continuation. There is the new science of psychology, in all its different forms, which seeks to explain theoretically the innermost experiences of man, thereby contributing to the impression of the adaptability of science. In addition, there is the development of a more and more complicated language in both science and philosophy and sometimes also in theology, which seems to reduce the differences between them and to make a unitary way of thinking possible.

All these signs of an apparently humanizing influence at work in the field of science bolster the illusion that science has freed itself from the limiting effects of determinism and foster the belief that science can and will presently speak authoritatively on such subjects as human relationships, morals, art and religion. But since, as we have seen, science cannot divest itself of its primary concentration on causal relationships, it is a mistake to adopt scientific methods when one wants to understand inner experience. Such terms as "the freedom of the electron" suggest, but do not mean, freedom in the human sense. We cannot ascribe to the electron freedom to choose and to decide nor any inner experiences, and this is what the word actually implies. The mere absence of causation and predictability does not constitute a freedom which is comparable with the freedom which we, as persons, possess. Moreover, even though physicists are, at the moment, uncertain about the

necessary connection between cause and effect with regard to the behaviour of the electrons (so much so that the term "causality" is no longer used by some scientists), there is no possible proof that there is no causality. We may still discover it; our knowledge is simply not complete enough to entitle us to deny its existence. In any case, the scientist must try to make his formulæ as reliable, and the events as predictable, as possible—that is, to detect necessity as far as he can.

There is no doubt that many scientists are aware of this essential difference between the scientific attitude and the very different approach which is required when we deal with our actual experiences. But we have to emphasize this difference for three reasons:

(1) Popular knowledge of the sciences usually lags behind their latest developments by twenty to thirty years. There is the danger, therefore, that the new and greater achievements of science are popularly used to strengthen further that belief in determinism which seemed to be supported by the older forms of science—the belief, that is, that human behaviour is entirely determined by factors upon which we have no influence and that freedom of choice and decision is illusionary. This mistake is certainly still made by many who try to popularize the findings of science, and by all those who want to make use of science for dismissing absolute morality and religion.

(2) There are many who think earnestly about these problems who try to bridge the gulf between science and human experience, and they often use the new vocabulary to this end. This new vocabulary is rarely fully understood, and therefore these people fail to see that much of it is an approximate translation of mathematical formulæ into everyday language. Faced with the symbolism of the formulæ instead of the translation they would recognize their mistake and see that this way of thinking cannot possibly describe our real experiences. For example, the "freedom of the electron" is derived from the uncertainty principle;

this could suggest human uncertainty concerning decisions; yet the principle is, in fact, simply an exact mathematical formula indicating the boundaries within which error cannot be avoided. These errors are bound to arise because scientific observation influences the behaviour of the electron. In other words, the scientist is aware that he can no longer achieve the ideal of scientific observation, namely, that the influence of the observer (that is, of man) should be eliminated. If this much is understood, it can still lead to a further misinterpretation of the scientific attitude in suggesting that man, after all, must be taken into account. Yet the mathematical formula actually excludes him, for it replaces the observer by equations.

(3) Unless the difference between the scientific method and the approach required by human experience is clearly seen, the fundamental nature of scientific thinking makes itself felt and works in the direction of determinism, even against the conscious intentions of the person applying it. This can be seen in many instances. Psycho-analysts, for example, try to make unconscious memories of childhood experiences conscious, so as to remove any hindrance to the exercise of the will of the adult. This implies belief in freedom of decision. But as the analyst has to concentrate on the disturbances which he wants to heal, his theories, despite their apparently obvious implications, have in fact contributed to strengthening the belief in determinism; childhood experiences upon which we had no influence have simply been added to those social and biological factors which seem to make our behaviour a necessary effect of external causes. The same has happened with the theory that faith in God is due to the existence of a father-complex, to the longing of the adult to have a father who protects him. Many psychologists have protested that this is only a psychological statement which does not say anything about the existence or non-existence of God; yet their argument has been used as a proof supporting atheism. Similarly, any advantage resulting from the emphasis on the undetermined

behaviour of electrons, far from making the electron more real, tends to support a mechanistic view of man, particularly when it is applied to movements of particles in the brain.

The complete contradiction between on the one hand science with its inherent determinism and on the other the freedom of will has to be faced without prejudice. Scientific theories which deny the existence of free will and individual responsibility cannot be wholly dismissed; our actions are determined in many ways over which we have no control. We may add that the existence of free will cannot be proved as conclusively as the existence of some elements of determinism; and although determinist theories of human behaviour contain gaps which could be filled by the notion of freedom, all such gaps suggest that the theory is incomplete rather than that free will is proved by the gaps. It is true that, if we assume that we are free, we have to recognize that our freedom is restricted—how rare are the occasions when we can act as we like, unhindered by external circumstances or some self-acknowledged weakness of character! But merely to recognize the limitations of human freedom is far from achieving a reconciliation between the scientific theories and the belief that we are free, for even the most limited free act presupposes that freedom of will really exists—a freedom for which no scientific theory can ever account. We are bound to acknowledge that we are, first of all, persons. To many people this term seems vague; but its meaning is precisely that we are free to choose and responsible for our choices. We shall never understand ourselves unless we see ourselves as persons, knowing that we experience promptings which conflict with all inner and outer drives—with our self-interest and our wishes, with society forcing us to assume a particular role and with our natural inclinations, our preconceived ideas and automatic reactions. The external compulsions may be extremely strong, but nobody can force us to act against our convictions if we are prepared to run the ultimate risk of

sacrificing our lives. There are certainly completely amoral people who are utterly at the mercy of their instincts or passions, but they seem to be the exception rather than the rule. These extreme cases, however, only confirm our daily experience—that, in spite of the great pressures working upon us, we remain persons, aware that we must behave as persons.

The contradiction between the deterministic element in a scientific approach and the personal world of our experience—though so complete—is not a defeat of our thinking, but a position from which we can make a further advance. If we could really use nuclear physics (or any other branch of science) as a kind of bridge between determinism and freedom, as mediating between them and leading to their complete reconciliation by removing all contradictions, there would be one minimum requirement: to draw exact boundaries between the sphere where we must accept necessity and that where we can exercise our freedom of decision. Then we could apply the two different kinds of knowledge separately and prevent any conflict between them. Yet to draw such boundaries is clearly impossible. I cannot simply say: in this respect I am free and in that I am not. In a situation where I seem most in control I may suddenly fail because, as a result of a defect in my own character, I have overlooked some external factor or misjudged the character of some person. In a hopeless situation a truly personal deed may affect other people so that a way is opened where none seemed possible. No theory can ever sort out those innumerable and varied situations with which different people are confronted at different times; and this is to the good, for it will only prejudice our actions if we consider situations as belonging completely to one sphere or the other when they actually intermingle. We obviously have to learn by trial and error to meet the situations which life presents.

A clear distinction between the realm of necessity and that of freedom would of course be very convenient and

philosophers have tried to find one. The most convincing of these attempts is probably that which distinguishes between actions and events and their interpretation.¹ According to this doctrine our actions are subject to external laws and are of the same order as necessary external events, but we are free to interpret our experiences, whether they are actions or events, in different ways. Even the greatest failure, seen in the right light, need not be felt as defeat, for it can stimulate new hope, increase our understanding of ourselves and others, and disclose a more correct way of thinking; conversely, a stroke of apparently good luck may be misunderstood and strengthen a wrong belief and so lead to greater vulnerability and impoverishment of mind. Therefore, we are told, we should concentrate on interpretation, on meditation and mystical experience, and abandon the hopeless quest for a control over our activity. Certainly, this attitude, too, has its merits; but is it a satisfactory description of the realm of freedom? What a poor thing freedom would be if it could never be translated into action! The fact that we can experience it surely implies that we can act according to it, otherwise we should have no feeling of responsibility for our actions. Moreover, this emphasis on interpretation overrates the power of our minds. There are catastrophes from which we cannot escape into the sphere of reasoning and contemplation; they may and will defeat us. This is not to say, however, that the very experience of suffering may not occasionally help us. We cannot say that it always will, but there are times when sheer suffering brings its rewards where contemplation failed.

We must therefore accept the mysterious nature of this interaction between necessity and freedom and remain content with their co-existence and opposition. Every action is a new experiment, and only by attempting to act can we ever see how far we were subject to necessity and how far our personal will made itself felt. In the last resort,

¹ Cf., e.g., Spinoza.

success or failure is no criterion, and this is another reason why theoretical dividing lines are useless. Failure may teach us more about our true nature than the success at which we aimed, and so increase the range of our freedom of action; we may find something of value where we least expected it, something which success might have hidden. On another occasion, our success may confirm that we have correctly judged the scope of our freedom, and the result will probably clarify our feelings and enlarge our knowledge. If we make proper use of this opposition between external achievement or failure on the one hand and our fundamental inner needs on the other, if we take nothing for granted, but constantly match any result we achieve against the requirements of our individual personality, we shall become more and more aware of what we are and of what we ought to be; this will inevitably change our personality and this change, in its turn, will influence our further actions. An awareness that we are constantly testing the boundaries of our freedom is a much greater contribution to an understanding of our nature than any artificial drawing of unreal boundaries which often, by prejudging the scope of our freedom, restricts it.

I hope I have said enough to show that philosophy can be of help and to indicate the problems with which, if it is to be of help, philosophy must deal. We have outlined the problem of necessity and freedom to which we shall try to find a solution; upon this solution must depend the justification of moral responsibility because we can be held responsible only if and in so far as we are free to make choices. We must also learn more about the nature of man so as to avoid the mistake of considering morality in isolation, for any mere obedience to rules can make man rigid or even ruthless; true morality must spring from love. The investigation of the scope and method of scientific thinking which we have begun we shall continue; and as there can be no moral experience without feeling, we shall also have to ask whether and in what way feeling can be an organ of

knowledge, and if so, whether and in what way this knowledge can be reliably assessed and related to scientific knowledge. As we are concerned with knowing, it is essential to ascertain how much we can really know, whether there are any limitations to knowledge, and how far we can assume that what we know corresponds to reality. In the end, this will lead up to the related question of whether we have to accept faith as having a validity comparable to and transcending knowledge, or whether we should dismiss it as a poor substitute for true knowledge.

The fact that faith has become problematical seems to confirm my view that the opposition between determinism and freedom is real and fully experienced by many, despite all the attempts either to disregard it or to bridge it. I am convinced that there are very many people who are dissatisfied with any scientific or similar view of the whole of existence and who are genuinely longing for faith, but find themselves unable to justify their longing or find satisfaction in a faith. They are bewildered and prevented from accepting religion because science has taught us to distrust anything for which we have no objective proof. The nineteenth century has erected enormous barriers against any kind of faith, making it appear an obsolete superstition which must be superseded by science; and though the need for religion is often no longer doubted, the barriers have remained more or less intact. Obviously neither the churches and theologians nor the few philosophers working in this direction have succeeded in breaking down these barriers. They have not removed the impression that a sacrifice of the intellect is required to enable modern man to accept faith—a sacrifice which most of those who seek faith are unable or unwilling to make. I hope to show, however, that if this split which threatens our integrity is dealt with in the way I have suggested—if it is openly faced instead of being disregarded or the problem watered down—we shall be rewarded by seeing knowledge and faith in harmony. They remain different and even contradictory in some respects,

but their very opposition throws light on both of them, so that no sacrifice of the intellect is demanded. Knowledge does not replace faith, but it also does not make faith impossible, while faith, without endangering knowledge, does not make knowledge superfluous.

Undoubtedly there is a point of view from which it could be argued that philosophy is not, after all, so very important. The fundamentally important things in life are often independent of a man's intellectual status; character, healthy instincts and natural feelings may matter more than thinking. A simple peasant may occasionally be more virtuous or even wiser than a great scholar, and if a scholar is virtuous and wise, he may be so because of his intellectual preoccupations or in spite of them. Faith, in particular, can be independent of intellect and reason. But this view, though true, is hardly helpful in our present predicament. Our age is characterized by the decline of religion, by the breakdown of tradition, by man's estrangement from nature, by the undermining of human relationships, by technical developments; we have learned that what previous ages considered natural morality, natural law and natural religion are not really natural, but fruits of civilization which can disappear. A growing majority of men has therefore adopted an intellectual approach to the world. Faith, especially, as we have just said, is at present the subject of intellectual questioning. If we must think, however (and who can really avoid it?), it is obviously better to think in a way which can do full justice to our experience. The history of the last few centuries is enough proof of the harm which comes from one-sided thinking.

Perhaps I may here add a word or two about my personal approach to these problems. In some ways they demand a less cautious attitude than that of the logicians. If one is dealing with problems of a personal nature, one cannot possibly avoid personal committal. This may occasionally make my statements sound dogmatic. But only by stating a personal view unreservedly can the full personal response

of the reader be evoked. Nevertheless, my attitude is more cautious than that of many others and not, in fact, dogmatic at all, for it is based on one most essential reservation—that there are boundaries to knowledge which we must always bear in mind. This may by now have become clear in several ways; it will be dealt with fully in the chapter on *The Limitations of Knowledge*. I believe that the true object of philosophy is the search for ultimate truth, not because I assume that we can succeed in this search, but because it will bring us to the boundaries which we have to accept and thus make them clear to us. Speculation, so it seems to me, can only be fruitful if we remain within the scope of what we really can know. The approach of the specialist may appear more modest, but it rarely is so, for it frequently ignores (and thus implicitly denies) these all-important limitations, thereby encouraging philosophers to forget what they ought most to respect.

Philosophical writings and lectures are bound to rely on abstract representations of experience. Because they are preoccupied, not with artistic creation, but with thinking, they cannot even attempt to represent life in all its fullness. But this ought not to mislead the reader; all that will be said has grown from contact with real experience and the reader should test it in the same way, for otherwise he will miss the point. I sincerely hope that there is no sentence in the book which has been written merely for the sake of argument or in order to arrive at a neat conclusion; wherever necessary, I have preferred to be inconclusive rather than to force human experience into a preconceived pattern. I think it more worth while to stimulate the activity of thinking than to arrive at final conclusions. But this activity should be a valuable part of our lives and not a mere game; it should point in the right direction and be a means to an end, that of a full personal life, and not an end in itself. This, however, can only be achieved if we think about questions which really concern us, questions upon which much in our lives depends. I would ask the reader to view

the book in this light, to add substance to the framework of my ideas by consulting his own experience, so that the inevitably abstract rendering of my thought may reveal its relevance to his own life.

CHAPTER II

THE WORLD OF SCIENCE AND THE WORLD OF PERSONS

THE breakdown of attempts to construct a unitary system of knowledge about reality has been considered, in the previous chapter, mainly as it appears in a philosophical context. Our task now is to take a closer look at reality as we experience it, in order to show in concrete terms, not only why all attempts have failed, but also why they must always fail. Only by exposing and accepting the inevitability of this failure can we hope to find a way of surmounting the problem which the fact of the breakdown presents.

The contradictions between the two types of philosophy or between determinism and our certainty that we are free to choose throw into relief a fundamental characteristic of our experience. It needs no complicated philosophical analysis to see that every man in his actual life is confronted with the same kind of problem. When dealing with practical questions, he can usually base his behaviour on scientific knowledge (in the widest sense of the word). But just as often there are other situations—such as when he has to decide whether to help another person or not, or whether to embrace a cause which demands a sacrifice—where scientific knowledge is of no avail; in such situations, he must needs draw upon a different kind of knowledge. This other kind of knowledge upon which we depend to such an extent must therefore be accorded due place in any investigation of the nature of reality.

Professor H. H. Farmer, in his book *God and Men*¹, gives a simple example of behaviour, based on these two kinds of knowledge. He asks us to imagine the life of a scientist who

¹ Cf. pp. 40 ff.

is working in his laboratory, investigating (say) earthworms, while at the same time living with his wife and family in a deeply personal relationship of love and trust. The following points in his example are relevant to our enquiry.

In the laboratory, the scientist is not concerned with the concrete, particular, individual, unrepeatable object. His experiments must be repeatable, for he is aiming at generalisations. If he damages an earthworm, he can throw it away and replace it by another. But at home, on the contrary, he meets unique, unrepeatable, distinctive, irreplaceable individuals, and it is upon these that any personal relationship, any friendship, and any love between persons is founded. Certainly, if his "unrepeatable" wife is ill, the doctor has to treat her as a "case", but this is not a distinctively personal relationship, and the simple solution of throwing the scientist's wife away and replacing her is clearly unacceptable.

In the laboratory, furthermore, the scientist exercises a degree of control far beyond that which is possible in any human relationship. Naturally, he must submit himself to the facts, but he can arrange his experiments as he wishes; within the limits set by the facts he is undisputed master. He need not, indeed he cannot, ask the earthworm's permission to destroy it. At home, of course, he can also try to behave as a dictator, but this attitude is unlikely to be successful and is certainly unsatisfactory. Rebellion will always be at hand and, what is more important, he himself will know that he ought to behave differently. For here he meets other intelligent, self-directing, self-conscious, personal wills beside his own; and a satisfactory family life, a successful marriage can only be founded upon respect for the freedom of others and upon trust. At the same time, this limitation of one's own will is not felt simply as an annoying hindrance (as the spoiling of too many earthworms would be); we know that there is possibly no greater satisfaction than that of human harmony based on trust.

Now the scientist undoubtedly bases a good deal of his

laboratory-work on trust, too—more than is usually admitted. He does not start, as is frequently claimed, with no assumptions whatsoever. He believes, for instance, that the universe has a fixed and settled order, for it is only on such an assumption that his particular experiments can have any general validity. This is, after all, quite a big assumption to make. Yet the basis of his trust is his belief in a mechanical necessity; the exactness of science is the more reduced the more the possibility of mechanical repetition is restricted. Biology and psychology are consequently far less exact than physics. The reliability of such a mechanical necessity, however, would be a quite insufficient basis for the scientist's confidence in his wife; with this alone to reassure him, he could never trust her out of sight, for while he was away, another and stronger force might subdue her. The basis of trust in the relationship is the acceptance of the same standards, of freely chosen values; it is love of one another and belief in the same principles.

It is obvious from this example (which applies to all of us, for the work of the scientist is only an extreme instance of the conditions of our daily practical work) that the methods used in one sphere are useless in the other. The scientist cannot adopt a scientific approach towards his family, nor can his experiments be conducted on the basis of his attitude towards his family. The two kinds of knowledge are appropriate to two completely different spheres of experience. The contrast between them is, in fact, so great that, for practical purposes, these two spheres can be looked upon as two worlds or realities.

On the one hand there is the reality which we recognize by means of our five senses and, on the other, the reality which we can only know through our feelings. For example, it is through our senses we gain the knowledge of objects such as stones and trees and of such facts as that stones sink if thrown into water and that some trees lose their foliage in winter, whereas it is through our feelings that we know that to hurt a person through words or deeds will cause

suffering. The reality made accessible by the senses can be measured and our statements about it are susceptible to proof. This reality is the province in which science plays such an important part today. The reality of feelings is quite as real and significant to us, but it is not susceptible to measurement and does not lend itself to the same kind of investigation and proof. One of the ways in which we can distinguish between these two apparent realities is through the means we employ to confirm our knowledge of them. In the reality of the senses we seek to establish truth through impersonal evidence; but in the reality of feelings we seek to confirm it through personal experience.

The fact that we have to deal with reality in two different ways—that we encounter two worlds instead of one—is due to the way in which our minds work. Thinking forces us to oppose ourselves to the external world, and in doing so we split reality between ourselves and whatever we can consider as foreign to ourselves. We are able to become conscious of reality because we are a centre of a different kind which perceives, thinks, feels, wills; we must be able to direct inner activities towards something lying outside ourselves, grasped by, but distinguished from, these inner activities. Without such an opposition, we should remain so completely submerged in reality that we could not possibly apprehend it. Man's consciousness, the first condition of his thought, develops as he begins to differentiate himself from his surroundings and to see reality as an experience of his own. As soon as he becomes conscious of it, therefore, this reality is divided into two different spheres, and this division is inseparable from our consciousness, because consciousness depends on it. The division is of the essence; it is even the condition of our becoming conscious, for instance, of our own body. We become aware of it, not by those activities which are part of its functioning, such as the circulation of the blood, but by activities of the mind which are of a totally different kind.

It is true that many people hope that eventually we shall

be able to describe thoughts in terms of mechanical processes in the brain, but their hope is mistaken. Even if we knew exactly which movements of particles in the brain, which electrical impulses and mechanical transmissions of code messages are produced by every thought, we should still not understand the meaning of the merest fragment of a thought. External motion (which can be measured and expressed in mathematical formulæ) and the content, the meaning of a thought or sentence (which can only be understood and expressed in the language of words), though two aspects of the same process, are so entirely different that it is impossible to deal with them in the same way. The most exhaustive description of the nerve-processes connected, let us say, with pain will not help us to understand what pain is unless we have actually experienced it. Once we do experience it, however, there is no need for further explanations; our experience is direct and immediate and quite different from the theoretical knowledge of the process.

It is no accident that the problem of the relationship between mind and matter has not been solved, although the philosophers have been wrestling with it for centuries and the scientists for at least a century. Pascal, for instance, said about three hundred years ago:

“Who would not think, seeing us compose all things of mind and body,¹ but that this mixture would be quite intelligible to us? Yet it is the very thing we least understand. Man is to himself the most wonderful object in nature; for he cannot conceive what the body is, still less what the mind is, and least of all how a body should be united to a mind. This is the consummation of his difficulties, and yet it is his very being.”²

In the Age of Reason, when most philosophers believed that they could solve every mystery, he was a lonely rebel, but his view has been confirmed by further knowledge. Since his day very many discoveries about the working

¹ i.e. seeing reality as consisting of mind and matter.

² Pascal, *Pensées*, No. 72 (Everyman Edition).

of the brain and the nervous system have been made; we no longer have the vague idea of Pascal's day that the body is an "automaton"; for us it is an organism which we seem to understand almost completely. Yet one of the greatest of modern scientists, Max Planck, the originator of the quantum theory, still feels bound to say:

"We can test a material process just as little from the psychological point of view¹ as we can judge an intellectual experience from the physiological point of view. It is therefore impossible to survey both material and spiritual events from a single point of view. If we want to achieve clear results, we must stick to the point of view from which we started, and as the one excludes the other, the quest for the connection between mind and matter loses its meaning. There are always either material or intellectual processes, but never both at the same time."²

The question of the relationship between mind and matter cannot be answered because it is misleading to ask the question at all. They are, undoubtedly, two aspects of the same thing; it is obvious, for example, that if the brain is damaged we lose certain intellectual capabilities. But we are unable to deal comprehensively with both mental and physical processes at the same time because we cannot think in terms which are simultaneously adequate to both; we are obliged to consider either one aspect of the relationship or the other. For example, if we were to describe this book in material terms we might weigh it, analyse the paper on which it is printed, describe the letters and their grouping and the relative frequency with which letters occur, but after all this and more, we should be no nearer understanding a single word.

The scientist, preoccupied with the physical and external aspects of reality, has to be as "objective" as possible, has

¹ As can be seen from preceding statements, I do not identify here the psychological with the spiritual point of view. We shall return to that in a moment. But this does not invalidate Planck's argument.

² *Scheinprobleme der Wissenschaft*, pp. 18-9.

to exclude his feelings, his sense of values and his inclinations; the ideal aim towards which he strives is an exact mathematical formula which leaves no room for any personal interpretation whatever. Yet to understand ourselves as persons we must think in quite a different way; we must pay attention to our feelings and to our experience, we shall inevitably find ourselves thinking in terms of values, of right and wrong, of goodness and beauty, and here Shakespeare's tragedies will certainly be more helpful than the higher mathematics. We have the choice between concentrating on material processes, in which case our mind is simply an instrument to which we pay no attention; or on concentrating on the experiences of our minds, in which case material processes, though they still go on taking place simultaneously, are neither observed nor described.

Further evidence of the effects of neglecting these two aspects of reality can be seen in the development of European civilization, which has always been in danger of moving from one extreme to the other. The Middle Ages lived in so predominantly a spiritual world that they saw nature and the external world as if through a haze. As late as the fifteenth century, in a *Bestiarium* published in London and containing descriptions of all known animals, only the cat was depicted fairly accurately; even the dog was rather fantastic; the majority of men were interested in allegories and heraldry rather than in animals. There were single individuals who investigated nature, but some of them, such as Roger Bacon, were forbidden to go on, and, in any case, they were not characteristic of the age. Abstract theological questions roused popular interest much more easily; simple people were still asking the early reformers, such as John Hus, such questions as "How many of the Egyptians drowned in the Red Sea were damned and how many were saved?" No wonder therefore that the post-medieval world should be characterized by an almost single-minded concentration on the exploration of the external world. But after the Enlightenment's over-emphasis

on the power of reason and the importance of science a reaction set in: the later stages of the Age of Reason were also the Age of Sentimentality; and afterwards Romanticism swept the whole of Europe and men became fascinated by the irrational. This movement was not powerful enough to weaken the position of science; by giving an outlet for feelings in a realm which appeared almost totally divorced from the control of reason, it only left science free from any need to take any feelings into account. But in our own time the irrational has manifested itself with greater force—in the various kinds of fascism, in extreme forms of Existentialism, in the idealization of the Middle Ages—appeals which would have been thought impossible only fifty years ago, and although a complete swing of the pendulum seems improbable at the moment, the signs themselves cannot be disregarded. Catastrophes produce surprising results, and even the feeling of frustration which is spreading at the moment may initiate another change of direction.

However that may be, the isolation of one view from another can also be seen in a characteristic individual attitude which is just as unbalanced. There are many people who accept only one view, even though the other is necessarily present in their lives.

There are those who believe that the progress of science alone matters, that all problems could be solved if only politics and social life were regulated by scientists and competent technicians. There are others who believe that science is the cause of all evil, because it has undermined religion, endangered all moral standards and thus uprooted man. When we are talking with the representatives of one side, it seems impossible to take the other side seriously; and when representatives of both sides try to talk together they cannot understand one another because the same words have come to mean different things for each.

The opposition is not always so obvious. Sometimes the two views clash within the same person either producing discord or being masked by some seemingly

convincing explanation. Of the many attempts to bridge this gulf, some have produced valuable results in limited fields; but none has fully succeeded. Fundamentally the opposition remains as serious as the extremist nature of the two views indicates. As we have seen, the scientist tries to establish necessary laws or, at the very least, statistical probabilities, but morality must rest on human freedom; the scientist tries to start with as few presuppositions as possible, but religion from a revealed truth; the scientist tries to be as objective as possible, but a man, however successful in science, remains concerned with his own, subjective experience.

It has become a commonplace to say that our difficulties are due to the fact that our moral development did not keep pace with the advance of science and technology, and this, commonplace or not, is perfectly true. Our lives have been upset by this inbalance which is the more severe because of the natural reaction produced by such a discord—by trying once more to find a unitary explanation of the whole of the universe and of human existence, or at least a unitary way of thinking. This urge is extremely strong; we cling to one of these two worlds because we believe that an explanation cannot be satisfactory unless it finally leads to such an all-inclusive unity. The naturalness of the urge cannot be denied, for any impression, that of an object as well as that of an event, is first perceived and later remembered as a unity; a view of a room, an evening with a friend, a journey, though consisting of many parts, seem to form single units in our minds. We also experience ourselves as persons who are painfully threatened by any kind of division. The older teachings of the East and modern psychology may say that we are only bundles of separate instincts, perceptions and volitions—yet there must be something which binds the bundles together and enables us to say “I”. Nevertheless, the only possible way of progressing beyond the point of the breakdown of the unitary systems is to recognize and accept the separation of reality

into its two aspects. Moreover, I hope to show that by so doing we could better satisfy our natural longing for a comprehensive unity.

First, two points should be borne in mind.

(1) The difference between these two aspects of reality is not identical with different parts of the physical universe. For the purpose of showing the split, we have contrasted man with the external world, for this makes it most obvious; yet what matters is not this contrast as such, but the consequences of it—the realization that everything in reality can be approached in two very different ways. Stars, for instance, can be seen as purely external, in terms of physics and astronomy, but they also can give us an impression of beauty or make us aware of man's insignificance in the vast universe and thus, perhaps, of the significance of the moral order which alone can help us to face this vastness. Thought of in the latter way, even the stars are a part of the internal aspect of reality. Conversely, the psychologist, though he is dealing with the innermost activities of man's mind, tries to subsume these in external reality, for he thinks in terms of the investigation of processes and attempts to discover general impersonal laws and to apply the methods of natural science. This has, within certain limits, produced valuable results. The observation of processes, those patterns repeated in many minds, however, can never lead to an understanding of our intellectual or spiritual experiences; we can neither perceive nor interpret their particular meaning for us so long as we are concerned with general laws.

We should not be surprised to find that everything can be approached in different ways. Science, religion, the arts are not dealing with different worlds or different parts of the world, but with the same world in different ways. This same general statement is equally true of the many branches of natural science; physics is one such way of interpreting the whole world including man so far as he is a physical body; biology is another such way of interpreting the whole world, including physical facts, such as time, weight and

motion, but from a biological point of view; psychology similarly can be extended to include everything, but this time only so far as these things make an impression on man's mind. The two fundamental aspects of reality can be similarly regarded; not, however, as different branches of knowledge, but as two different approaches which determine all our thought.

(2) What we have said about psychology is of particular importance—we should not confuse psychology with the internal aspect of reality which we are trying to describe. Psychology (as a science, not as an art of healing which does not concern us here) tries to understand even the most individual experience with the help of laws, theories and symbols which can be generally applied; the internal aspect of reality, even if explained with the help of general statements, can only be understood if I myself, as the unique person that each one of us is, connect them up with my actual unique experience, and transform them into completely individual experiences by my personal participation. So far as the distinction between psychology and this internal aspect is concerned, the statement of Planck which we have quoted could be misleading. What he says certainly applies also to psychology; as each single branch of natural science deals in accordance with its needs with the whole of reality, psychology and physics exclude each other; but a true understanding of the spiritual events to which he then refers is dependent on the internal approach by which I mean the understanding of man's mind from within and by the help of inner experiences.

To make it easier to examine the two aspects of reality which are disclosed by the two possible approaches, I shall call them "external reality" and "internal reality". It should never be forgotten, however, that this is only an abbreviation, introduced for the sake of simplicity. I do not doubt for a moment that there is but one reality; otherwise these two aspects could not each apply, though at separate times, to the whole of our world. The underlying unitary

reality breaks into our experience again and again—when a damaged brain makes thinking impossible, for example, or when a sudden intuition gives us new knowledge about external reality—but it cannot be translated directly into thought, because in such a translation we are dependent on the division created by the nature of our ways of thought.

These names for the two aspects are not altogether satisfactory, but they seem, if we avoid the doubtful venture of inventing new words, the most adequate available. H. H. Farmer, in the passage referred to above, speaks of “the world of things” and “the world of persons”, and it would also be possible to speak of an impersonal and a personal approach. But these might be misinterpreted as suggesting that the concepts apply to two different parts of reality and we have seen that this misunderstanding should be avoided. The disadvantage of the description “internal reality” (which I use) is that it is also used in physiology and psychology and may be confused with the meaning given to it in these fields. Nevertheless, this seems the lesser of two evils. Perhaps it is not an evil at all; for if the use of the term I suggest were accepted, it could remind those who are accustomed to use it in a purely scientific way that man is not as simple as the scientific view sometimes suggests, that we touch something entirely different once we approach the inner experiences of man and try to understand his mind.

Philosophers also object to the use of the term “reality” because it cannot be adequately defined. This is perfectly true; when we look at all the contradictory definitions of reality which have been tried, we soon discover that they do not define the concept as such, but offer us an interpretation based on concepts such as matter or spirit, or on a particular theory of knowledge—that is, they give an explanation of their theories and not a definition of reality. Their definitions are invalidated because they neglect the fact of the two aspects that reality always presents to the human mind. To pay attention to this fact may therefore be of great help in this very matter of defining reality.

External reality can be defined. We apprehend it reliably when the conclusions to which we come about it fulfil the following three conditions:—

First, they have to be independent of their relation to the person observing them. This is a self-evident principle of any scientific investigation, and though—since the observer remains tied up with the fact of observing—it cannot be fulfilled completely, any such observer of external reality tries to comply with this condition and to be as “objective” as is humanly possible.

Second, they have to be ascertained in space and time. This, too, is self-evident in our everyday experience and in classical physics. It no longer seems true in modern physics, but this does not invalidate the point, for our ordinary thinking is not influenced by these developments, while these developments can never emancipate themselves from this ordinary thinking. Ordinary thinking has, for instance, to be employed for measurements which could not be expressed in any other way, and also whenever the results of physics are applied within our everyday world. Such an authority as Heisenberg emphasizes again and again that the influence of modern physics on ordinary thinking should not be overrated; he says:

“The applicability of these forms of perception,¹ and of the law of causality is the premise of any scientific experience even in modern physics. For we can only communicate the course and result of a measurement by describing the necessary manual actions and instrument readings as objective, and as events taking place in the space and time of our perception¹. Neither could we infer the properties of the observed object from the results of measurements if the law of causality did not guarantee an unambiguous connection between the two.”²

Third, they must be describable in terms of general

¹ The translator has retained the German words “Anschauungsformen” and “Anschauung”.

² *Philosophic Problems of Nuclear Science*, p. 20.

validity, so that, if they are correctly described, everybody who understands our language can recognize them. There is no doubt that I can give a recognizable description of, say, a desk by giving its shape, colour, size, material, if necessary its weight, and so on. The perfect description of this kind is the mathematical formula which leaves no room for ambiguity.

If we now try to apply this definition to internal reality, the fundamental difference between these two realities becomes obvious at once.

First, independence of the observer. Inner experiences, value-judgements and feelings are dependent on the observer; they are obviously only possible if we establish a relationship between an object or an event and ourselves. To grasp external reality, we subordinate ourselves to it; when we are concerned with internal reality, we establish the relationship between ourselves and external reality. Objects and events must become means to our ends, they must be regarded as valuable or valueless, and they must express what we feel or think or experience.

Second, space and time. We live as spatial bodies in time, so that space and time are inevitably of great importance to us. Nevertheless, they are of little importance when we are concerned, not with motion in space or evolution in time—that is, with external reality—but with values which are the true expressions of internal reality. If we find a picture beautiful, we do not ask its weight or its size. If we find an action good, we do not judge it so because of where it was done or because of the time it took to do it; for though the circumstances determine the form of the action, its goodness depends on the motive and aim of the doer and the relationships between the people concerned.

Third, general validity. A scientific theory has to be abandoned or modified if a single contradictory fact is discovered; it is generally valid because it does not allow of exceptions. Now if we decide that something is of value,

that it is right or good, though our findings are personal, we are no less convinced that our judgement is of general validity. But this apparent similarity between the two kinds of validity points the difference between the two realities in the clearest possible manner. For our judgement may go against that of everybody else; we may be the only ones to think so and yet be right. Most of the progress in our knowledge of goodness was brought about by men like Moses, Socrates or Jesus who were at first at odds with society. Only very few of his contemporaries recognized the old Rembrandt as a great painter; most of them pitied him for becoming a drunkard and losing his genius; but the few were right and the majority were wrong. This has certainly also happened to scientists who made new discoveries; but the striking point is that such value-judgements were in the end accepted although it remained impossible (unlike scientific discoveries) to convince another person of their validity by a universally comprehensible and convincing description. An attempt to convince someone who does not see it of the beauty of a sunset is likely only to destroy our own enjoyment of it. The rule proves as little as the exception; even if there has never yet been an entirely sincere friend, says Kant, sincerity in friendship remains a demand of absolute validity.¹

Yet despite the fact that it becomes real to us through our personal participation, internal reality is not subjective in the frequent derogatory sense of the word—that is, it is neither mere wishful thinking nor a product of our bias or imagination. We can make correct or false judgements about it, which indicates that this judgement is based on something independent of us; indeed, we are often forced to judge in a way which is opposed to our conscious wishes. If we have done something wrong, we may convince ourselves that it was right, but few of us will really be able to do so without an uncomfortable feeling that we have not

¹ *Fundamental Principles of the Metaphysics of Ethics*, transl. by T. K. Abbott, 3rd edition, pp. 24-5.

been completely honest with ourselves. It is the picture of the old Rembrandt which is beautiful, not our impression or judgement of it, and when we find a bad picture beautiful, we are mistaken. External and internal reality are grasped in different ways, but this difference is only one of method; the one reality is just as real and valid an aspect of reality as the other. The apprehension of internal reality is more difficult, partly because it requires personal participation and partly because, owing to our preoccupation since the Age of Reason with external reality, it has been neglected for centuries. Nevertheless, in some respects internal reality can be grasped more reliably than external reality.

In fact, it is only in the sphere of internal reality, in the sphere of values, that results can be achieved (beyond mere rule of thumb conclusions) which continue to be of more than antiquarian interest over thousands of years. If we consider, for instance, the historical context of the Ten Commandments or of the Sermon on the Mount, we see that the states and nations with which the Jews came into contact at both these moments in history have completely disappeared; the very countries have been transformed, fertile plains have become deserts and forests rocky wildernesses, even the climate has changed; the only things which have survived are these few sentences. They alone, in their essence, are still valid—that is, still alive and of real influence in our lives. The same applies to the Greek or Chinese books of wisdom, to poetry, to works of sculpture or architecture. In contrast, the methods and views of science have undergone many changes since then, and each change has invalidated previous theories.

To abandon the hope of discovering an all-inclusive unity may appear at first sight as a serious handicap. In fact it is not so; as our minds work in consonance with this division, thinking in terms of it will enable us to make the best possible use of our capabilities. Moreover, we are now in a position to see why this approach can also best satisfy our longing for unity.

The persistent attempt to find a comprehensive explanation which leaves nothing unexplained leads to opposing one part of our feelings to another, for, as no intellectual unity can ever be comprehensive enough to embrace the whole of reality, we have to reject whatever is inconsistent with it. We are driven towards emotional affirmations and denials, towards acceptances and rejections based on feeling, for all those things which exist but do not fit into our actual system can only be eliminated by being regarded as negative—thought of, that is, as harmful, pernicious, meaningless or “private”. Nationalism developed into a creed, for instance—and this is characteristic of any system—needs the “enemy” to absorb all those feelings which, though they refer to something which is undoubtedly real, cannot be accommodated in the unity and must in one way or another be removed. Natural science actually excludes judgements of value, but those who believe in it as the only possible unitary way of thinking make use of such judgements in order to remove, by regarding it as negative, everything which might disturb the unity. For them the term “unscientific” does not mean, as it properly might, what lies outside the scope of science, but what is valueless and cannot possibly be accepted. The scientific view does not entitle them to make such a value-judgement; there is no basis for it in science where any term should be used entirely objectively. The term “unscientific” has, in fact, become an expression of feeling. Yet by this appeal to feeling they discredit whatever contradicts their theories—whether it be human freedom or an absolute basis for goodness, the validity of faith or simply an attempt to replace one set of scientific beliefs by another. The conflict between the two aspects of reality, which intellectually they have ignored, is as a result shifted to the sphere of feeling where it is the more disruptive because of its emotional charge.

There is no solution but to change the emphasis completely. We should recognize the unavoidable oppositions

within our thinking and even pursue opposite and incompatible conclusions, for only when we think of the two aspects of reality, with all their differences and contradictions, simultaneously, shall we do complete justice to all our experiences, and this will open the way towards the discovery of unity in the only place where it can be found—namely within feeling. It is only there that we are able to create an intensified inner awareness enlarging feeling to accommodate the oppositions of experience, thus giving us access to the unity of existence, even though we remain unable to translate this experience of unity into clear-cut statements. Kant's famous opposition between "the starry heavens above" and "the moral law within" is a good example of this experience.¹ There he opposes the endless universe "with worlds upon worlds and systems of systems", annihilating by its immense size and duration our "importance as an animal creature", to the moral law within us which, nevertheless, convinces us of the fundamental significance and worth of our personality. Could there be a more powerful opposition? Tiny creatures, living for a minute span of time on an earth which is itself only a speck in the universe, and yet moral beings who know, as Kant puts it, "true eternity". We cannot overcome this contradiction by a unitary explanation; but the more we succeed in thinking these two contradictory thoughts with all their implications simultaneously, the more fully do we experience a feeling of awe, of humility and pride, of joy and responsibility, and this feeling makes us more clearly conscious than any theory could both of the majesty of the universe and of our own importance.

Only in this way can we make full use of our powers of both thinking and feeling. The discovery of this unity within feeling, moreover, is more important than it would be in thinking, for our personalities are much more directly affected by feeling, so that the splitting up of feeling is more

¹ *Critical Examination of Practical Reason*, transl. by T. K. Abbott, Conclusion.

dangerous. We need have no fear that the division into two realities is an admission of some kind of dualism—the domination of the world by two hostile forces such as good and evil, or the final acceptance of the dualism between the world of science and the world of persons which actually exists today. On the contrary, the basis of dualism is destroyed, since the division is not a conclusion about the true nature of reality, but a means of approach determined by the way in which we think. The two realities are facets of the same primary reality, whose existence is felt in the reconciliation brought about by feeling.

It is true that we may often fail to direct our feelings for, after all, they frequently defy all reason. But by this recognition of the existence of two aspects of reality thinking will at least lead towards, rather than away from, their reconciliation. Contradictions between feelings can be taken in our stride, for we commonly experience contradictory emotions as a unity—joy can be coupled with pain, sudden happiness may come as a dangerous shock, fear and admiration are united in awe, terror and bliss are close neighbours. Such experiences can be produced, as the example taken from Kant illustrated, by the right oppositions in thinking, and if this happens a unitary feeling fills, so to speak, the gap between the two poles of the opposition, transforming the tension between them into harmony.

How, then, is the split actually healed? Neither by denying its existence nor by attempting to unify what cannot be united, but by acknowledging it in the correct way, in the way, that is, which conforms to two conditions which are imposed on our thinking by the facts we have ascertained.

The first condition is that we have to be quite clear about what is external and what is internal reality. The conclusions of the natural sciences give accurate information about external reality when they are independent of the peculiarities of the observer and exclude judgements and values; biology and psychology are at a disadvantage here

because biologists and psychologists cannot entirely eliminate concepts derived from the sphere of human experiences. Knowledge of internal reality, on the other hand, does not allow us to make metaphysical statements; we cannot possibly know whether the universe is good, for value-judgements are based on inner experiences, applying to specific single occasions, and not general theories or explanations. Any confusion between these two spheres is bound to lead to serious errors in our knowledge; the mediæval claim that the earth must be the centre of the universe because it was here that Christ appeared was as dangerous as the recent attempt to make man merely a part of a mechanical explanation of the universe.

The second condition is that we must nevertheless take both realities into account. Each of them represents one aspect only of the whole of reality and our knowledge will remain one-sided and incomplete so long as we rely on one alone. The natural sciences are a human activity and they are based on the laws of thinking; when we forget this we use them to construct a false picture of the world and believe that they are sufficient on their own to explain everything. Nor, on the other hand, do we know any mind or spiritual being without a body, so that contempt for the physical world destroys our spiritual life. If we neglect one of the two realities, the other upon which we concentrate becomes abstract and lifeless too. The turning-away from the material world by the Middle Ages led, not only to an estrangement from external reality, but also to the reduction of internal reality to a completely abstract system, as exemplified in extreme scholasticism. In a very different—and yet in some respects similar—way the neglect of internal reality since then has not only led, as was to be expected, to an estrangement from internal reality, but also to an abstract knowledge of external reality, best exemplified by modern physics, where sense-experiences and imagination have to be replaced by mathematical formulæ.

In short, the two conditions which must be taken into account in our further discussion require that we must separate the two realities as clearly as possible and yet bear both in mind simultaneously.

CHAPTER III

PROGRESS AND FREEDOM

THERE are a number of phenomena which become more intelligible once this division of reality into two is recognized as being significant. Like our previous examples these phenomena are not matters of refined and abstract speculation, but of everyday experience.

Let us first take a trivial instance—a problem which may seem simple, but which makes manifest an underlying confusion that is frequently overlooked.

Nowadays, there is a great tendency to prize anything new—new acquisitions, new inventions, new theories, new books and films—to such an extent that newness seems valuable in itself. “New” and “more valuable” are often used to mean the same thing. A book, say, is considered out of date because it was published a few years ago. But we have already referred to old wisdom surviving through the ages, to old moral teachings and works of art; they are, of course, valued by many people. But this high valuation of old things is inconsistent with the idea that newness is valuable in itself. To adopt a purely conservative attitude is no solution, for from that point of view anything old is praised as against the new, yet the old things we have mentioned are not valuable because they are old, but because they are true or good or beautiful and therefore will not become out of date. Obviously different matters have to be judged by different standards; this is a truism, but it does not prevent judgements from being made on the basis of wrong standards. We decide what standards to employ vaguely and arbitrarily while we confine ourselves to one way of thinking. Here too we must start from a recognition of the existence of the two realities.

The clearest statements about external reality are those of natural science. Scientific knowledge has developed steadily and consistently and here it can be assumed that the most recent results are the best, that only the latest theories do justice to all the facts so far discovered. Occasionally scientific investigation goes up a blind alley, but even then the latest theories still embody the most advanced stage of knowledge. The same is true of technology; the most recent model of a machine or a car is usually the best; errors in both science and technology, more frequently than not, lead to new discoveries which contribute to a further advance. Admittedly even here newness should not be considered as valuable in itself, for this sometimes gives too much importance to fashion which hinders real improvement. But all such dangers are comparatively small; in general it is correct to say that the newest is the best.

In internal reality, such a statement would be nonsensical. Present-day music, for instance, is not better than that of Bach or Beethoven simply because it is new, nor are present-day philosophers more trustworthy than Plato, Locke and Kant because their works are so much newer. There is no such consistent advance as in science; a modern writer may—or may not—be better than an old one; the date does not matter. It is even doubtful how much sense it makes to say that he is better; we can, up to a point, distinguish between different levels, but on the same level (on the level of Bach and Beethoven, say) we cannot make such distinctions. In this sphere, there is a gradual accumulation of valuable works; the new ones do not supersede the old ones (as do scientific theories), nor do the old ones make new ones unnecessary (as would a perfect scientific theory). The whole structure of internal reality is different. Fashion, a minor danger in external reality, is a major one in internal reality, for it leads to disregard of the fact that in all achievements which seem to approach perfection, for instance in the life of such a man as Albert Schweitzer, values are

embodied which are ancient and well known. It is indeed true that they must be embodied and experienced anew, to come to life again. Mere statements are insufficient here; values exist only so far as they are felt to be valuable for the individual—that is, when they are transformed into new experiences. We shall discuss this later. But this is obviously not that kind of newness which is meant in speaking about new theories and inventions, unheard of before, for the basis of such a new experience need not be—and rarely is—new.

The problem of newness is not therefore as trivial as it at first appears, because it is related to the two aspects under which reality appears to us, and any confusion of these two aspects is detrimental to understanding. The acceptance of newness as a value in itself—though perhaps more or less unconscious—has led European thought considerably astray. The craze for newness, even if it is superficial, is dangerous enough, for it tends to speed up the pace of life and robs both the creative and the receptive person of the patience and leisure necessary to acquire the full stature of Man. Certainly, more care than ever is taken of old things, of treasures of wisdom and art, but they are left to the scholar, the museum, the antiquarian, and thus remain outside real life. In everyday life we are continually forced to catch up with the most recent events, and the increasing acceleration of technical developments exaggerates this tendency. A more important consequence of our belief in newness, however, is belief in progress in its modern form, not as a process dependent on human activity, a hope or a probability, but as something necessary and automatic, a natural law which can be scientifically discovered and formulated. It is this belief which is the real danger. At the moment, shaken by two world wars, confidence in the inevitability of progress is no longer so firm as it was; yet if we scrutinize our minds thoroughly, we shall find how much of our thought it still determines and how difficult it is to escape its influence.

When the phrase "belief in progress" is used, the word "progress" ought to mean a general increase in the well-

being of mankind, and this well-being should be judged as a whole and not by a one-sided advance, for such an advance in one field may be outweighed by a retrogression elsewhere. Progress ought to be thought of as the development of the "whole man" and not as the cultivation of one special facet of life. Moreover, such progress should not be confused with a particular advance, say, in modern science, unless this advance has produced an all-round improvement. But it is precisely this identification of scientific advance with general progress which has taken place, because most European thinkers of the nineteenth century were prone to pay attention to external reality alone and to neglect internal reality. As they were dominated by scientific thought and full of contempt for any kind of belief, they tried to transform the idea of progress into a scientific law and rarely doubted that they had been successful. This was made easy by the simultaneous development of the theory of evolution which was not seen as one of the results of this tendency, but as the strongest possible support for the law of necessary and incessant progress.

How powerful the influence of this belief in the law of progress still is can be seen if we pause for a moment to consider three assertions in the last few lines which may appear rather surprising. First, that the advance of science is not to be identified with general progress; second, that the fact of progress is to be doubted; and third, that the theory of evolution cannot be regarded as a final truth, even though it has been accorded the status of such by the trend in European thought. Let us look at these points in turn.

First, then, the relationship between advance in science and general progress. My assertion that they should not be regarded as identical may be accepted if considered in the context which the menace of the hydrogen bomb presents, even allowing that there is hope that discoveries in nuclear fission will, in the end, serve practical, peaceful aims. This assertion will be opposed, however, if attention is given to many of the miracles which have been achieved thanks to

science—miracles of which mankind has dreamed for many thousands of years.

Take, for instance, flying. Modern man can fly, and can even write on the sky, though this has gone out of fashion for the moment. Why do we fly? To save time. What used to be written in the sky? Advertisements. This supreme achievement is chiefly used for minor purposes. Of course, flying is a means to an end; it can bring about quick political decisions and important meetings. These are still minor needs, because the need for speed which makes them seem important is only a consequence of the same development; it is not fundamental. Many individual lives can be saved in cases of emergency which is certainly a gain; but this occasional use of flying is overshadowed by the very real possibility of mass-destruction. The point is that we have become unable to think of a purpose for flying to match the miracle of being able to fly; we have developed the means, but we are most uncertain about the end. Some people believe that flying could foster understanding between nations; this would perhaps constitute an end worthy of the means; but, unfortunately, the hope has not been fulfilled. Neither the fear of war nor its dangers have diminished; on the contrary, they have become more terrifying because of the development of flying, and the more this advance continues the greater do they become. Our age has been enslaved by external reality, that is, by the means, and has neglected internal reality which alone could disclose to us ends which are truly valuable for men. In other words: we are dominated by materialism, for concentration on external means is nothing but materialism, and are unable to oppose to it (in the West as well as in the East) anything of equal power.

What is lacking in our situation is thrown into relief by the prominence given to accounts of "flying saucers", a by-product of the triumphs of flying which have made everything appear possible. Similar phenomena were known in the Middle Ages; they led to wild guesses then, as now, but also to a spiritual crisis, a feeling of guilt, of the need

for atonement. Now, besides wild guesses, their effect is to give rise to sensational articles in the press, sensational broadcasting and sensational novels. In many respects the circumstances of human life have improved since the Middle Ages, despite the frequent idealization of that period. Nevertheless, something has gone astray, some essential quality of human life has escaped. There are those for whom Greek temples or Gothic cathedrals have no more meaning than their æsthetic or antiquarian appeal; yet if we compare them with modern architecture, even with the best examples of it, we are conscious of something lost. Wherever we look in our world today we see nothing strong enough to stand against materialism.

Let us take the most convincing instance of progress due to natural science—the advance of medicine. Epidemics have been virtually abolished, child mortality reduced and the length of human life approximately doubled; miraculous achievements indeed. This has created a new predicament, overpopulation, for which no sufficient remedy has been devised. A doctor recently asked the pertinent question: “Ought we to do the good if we know that, by it, we produce a greater evil? Ought we to heal diseases if we thereby increase overpopulation and produce starvation?” Here the doctor seems to be begging for moral guidance which our world is unable to provide. There are other medical discoveries which seem to call for an even greater degree of moral authority: drugs and brain operations which deeply influence and even alter the human character. What guarantee is there that they will not be misused as they were by totalitarian regimes? There can be no general progress if advance is made in one field only.

Second, the fact of progress. An automatic and necessary law of progress means that there is a constant development from lower to higher stages of human existence and that occasional retrogressions are always outweighed by further advances. Although the truth of this can be proved by comparisons with primitive man, such comparisons do not

help us when we try to appreciate our present situation; it is undoubtedly true that we have advanced astonishingly since primitive times, but we may, nevertheless, have been retrogressing for centuries, heading for a new barbarism. If progress is to be judged within the compass of a few centuries, however, comparisons with the past break down, for when our situation is compared with that of, say, the sixteenth century, we obviously find advance in some fields; but it is quite impossible to compare man's spiritual situation and his moral character then and now. Some gains and losses can be discerned, but addition and subtraction will not produce a definite answer. This remains true even if the comparison is made with a time nearer the present, of the period immediately before 1914, for example. Historical knowledge can never be sufficiently complete to provide enough data for the formulation of a law.

Another point to consider is whether further progress can be relied upon; for a law is confirmed by the reliability of its predictions. Such further progress confirming the law, however, is quite uncertain. There is, as we have mentioned, a great accumulation of spiritual goods; the world was undoubtedly poorer before Shakespeare and Goethe, before Bach and Mozart, before Buddha and Christ. But this does not guarantee progress, for all these treasures can disappear, which they do once they are no longer understood; their existence depends on their being understood; otherwise they lose all value. Recent experiences show that a new barbarism can rise in our midst. It is more difficult to imagine technical achievements disappearing, but their very development has made possible a catastrophe of unparalleled dimensions. Civilizations come and go; the highly developed civilizations of South America were so completely destroyed that hardly a trace was left; with our greater technical skill, we may succeed in achieving the same result with our own civilization. The destruction of civilized values is a possibility not confined to atomic war; further mechanization without a fuller understanding of its dangers may have the same effect.

If one of the believers in progress of the second half of the nineteenth century were to be restored to the contemporary world, he would learn, not of the millenium he was expecting, but of two world wars, of dictatorships, of tortures and concentration camps, of the type of emotional propaganda which concentrates hatred on "the Jew", "the Communist" or "the Capitalist", all of which his belief had led him to regard as relegated to the past. He would see much more clearly than we do how far we have regressed, despite all our great, but one-sided achievements; he would probably surmise that we were blundering our way towards a new Dark Ages, and his belief in progress would be destroyed. No law of progress can be established, for there is insufficient evidence provided by our knowledge of history (and pre-history alone is no guarantee) nor can this illusory law afford us reliable predictions. It is a belief, founded upon a few more or less inconclusive facts; the prestige of scientific advance alone causes us to think of it as a law.

It is true that belief in the inevitability of progress seems to be strongly supported by the theory of evolution. And this would be undeniable if the absolute universality of evolution, upon which the theory is based, could be accepted as a fact, and if a biological fact could explain the working of man's mind. But we have already seen that biology, which applies to external reality, cannot possibly make us understand internal reality. However, if evolution could be proved to be all-inclusive, most people would be willing to disregard biology's irrelevance to the understanding of human experience. But conclusive proof of evolution is limited to special cases.

Scientists speak, correctly, of a "theory of evolution", and the word "theory" has several implications. These must be clearly seen so as to prevent the mistake of taking outside science what is only appropriate within science. It is because the nature of scientific methods is often not fully understood that they are all too frequently applied where they do not apply.

A theory is a general set of principles advanced to explain observed phenomena—that is, a combination of speculation and ascertained facts. Any theory is based on working hypotheses, on assumptions which make sense in the light of the knowledge we possess, but which are nevertheless assumptions. The assumptions are necessary because there are gaps in our knowledge; these gaps introduce an element of uncertainty into the theory; any theory is subject therefore to the possibility of being wrong. As long as this possibility is slight and, in the light of new observations and discoveries, diminishing, the theory is accepted as valid. Because of the gaps, however, new discoveries may, at any time, compel changes within a theory or make a completely new theory necessary.

This implies, on the one hand, that a theory cannot be equated with truth. Of course, all theories work, otherwise they would not be accepted, but we shall see later that the argument “it works” never does prove truth. We need not enter into this discussion here to see that truth is obviously more than a collection of facts related to each other by assumptions. On the other hand, the word “theory” also implies that any theory can be changed or completely replaced if the discovery of new facts should make this necessary. Science would soon cease advancing if any theory were considered as final truth.

The gaps in the theory of evolution are partly due to the fact that it covers a very long historical process. Much of it must needs remain guesswork; we cannot possibly know exactly what happened some hundred thousand or millions of years ago. Since history inevitably carries with it an element of uncertainty, this uncertainty appears even in a branch of physics, the most exact science, when, for example, the history of the stars is explored. Fossils supply some evidence of biological developments, but only for the last quarter of the story and that with many gaps. Moreover, the necessity of relying in part upon unique historical events accordingly restricts the possibility of observing repetitions

and thus of checking by experiment. The scope of experiments is also limited by the fact that living beings have to be dealt with; organisms cannot be produced artificially nor is their chemical structure as easily analyzed as that of inanimate objects, quite apart from the fact that life itself seems to defy explanation. The theory of evolution, therefore, even though it has worked well so far, has remained and must remain a theory; and because it must therefore contain hypothetical elements, it is just as little protected from undergoing profound changes as any other theory. It is likely that important new facts will be discovered, and the discovery of new facts frequently makes necessary a new interpretation of the known facts.

We have been forcibly reminded of this just recently; the last fifty years have witnessed the development of entirely new theories in physics, and the changes in psychology have been almost as important. Nevertheless, such a revolution in biology is more difficult to imagine; the theory of evolution appears self-evident. But it should not be forgotten that most scientific theories have this self-evident air (for instance, classical physics yesterday and the quantum theory today), because the layman is unable to judge them for himself and has to accept what he is told. In fact, there are signs that a revolution in biology, similar to that in physics, is probable; quite a number of new theories are being tested in order to solve the problems which Neo-Darwinism has failed to solve. So far none seems to have been successful and Neo-Darwinism may still be capable of appropriate adaptation. In any case, however, it has already become possible to envisage the basis and framework of biological theory becoming entirely different, with the classical theory of evolution remaining a special case, just as classical mechanics has been preserved as a special case in physics. The calculus of probability, based on statistics, which is so important in modern physics, is increasingly being used in biology, diminishing the hope that a complete deterministic view may one day be established. In short, that part of the

theory of evolution which encouraged belief in inevitable progress is precisely the part which is disappearing.

The possibility of such developments should be kept in mind. Nineteenth century philosophy will for ever remain exposed to the reproach that it was not the philosopher, but the physicist himself who had to undermine the dogmatic mechanistic or materialist view which older physics seemed to support—that the world had to wait for a further advance of science before being shown more clearly what science actually means. A philosopher ought to foresee such developments, because he ought to be aware of the nature and limitations of science. That this is not impossible is proved by Kant who, in the eighteenth century, had developed the theory of knowledge to such an extent that it could be applied to the science of his age and so far beyond it that much of what he contributed is applicable today. But he was misunderstood or rejected in the nineteenth century. It was no accident that, when the theory of relativity seemed to call for a revision of the foundations of ordinary thinking, such physicists as Einstein and Eddington had to go back to Kant, for he alone could help them to see how the new theory could be accommodated within scientific and philosophical thought. The philosophical situation of the nineteenth century, however, still survives with regard to the theory of evolution which, as we have seen, is often accepted, not as a theory, but as a fact. Certainly the philosopher should not once more, to his shame, wait for the scientist to show him the inadequacy of his work; he should forestall the consequences of a possible revolution in biology which will only show what he could easily have recognized for himself long since.

After all, the theory of evolution has been part of a general trend of thought initiated by an early nineteenth-century philosopher whose ideas about history have since been shown to be wrong. The belief in a law which guarantees automatic and necessary progress was developed before Darwin by Hegel whose teaching, more or less forgotten

today, was most influential in Europe in the middle of the nineteenth century. It was Hegel's influence which prepared the way for a corresponding development of scientific thought and for the quick popular acceptance of Darwin's theory. The theory was not wholly alien to advanced contemporary thought; Herbert Spencer, for instance, indirectly influenced by Hegel, approached the idea of biological evolution before Darwin; confirmation and encouragement in his thought through Darwin's theory came later.¹

In fact, it is the very combination of belief in progress with the theory of evolution which has been pernicious, because it makes both appear to be laws. The one seems to fill the gaps of the other. Thus the inhuman savagery in nature, which is fundamental to the theory, has been used to counter moral commandments and any misgivings have been set aside by pointing to the inevitable progress which this element of the theory was believed to produce. For the sake of a purely scientific theory (useful but uncertain as all such theories are) we have undermined the only certainty available to us—our moral certainty. For if evolution and progress are seen as natural laws, man becomes entirely dependent on the external forces which work upon him; he is robbed of his freedom, and 'conscience and responsibility are made meaningless. The ruthless life and death struggle for survival which, according to Darwin, produces biological progress has actually been accepted as a condition of human progress—in the form of ruthless economic competition or ruthless class warfare or ruthless nationalism. If, indeed, there is a law that everything which happens must needs contribute to a further advance, it would be wrong to oppose this law and to hinder progress for some immaterial moral reason. We should have to agree with Hegel that even the great criminal is "a device of reason" to serve progress.

Although ruthlessness is no longer praised as openly as it

¹ For a further elaboration of the interconnections between Hegel's and Darwin's influence see P. Roubiczek, *The Misinterpretation of Man*, ch. 4.

was, the consequences of belief in this kind of progress are still with us. For the first time in European history, the human mind is seen, not as mysteriously having its origin in some higher spiritual sphere, but as a mere accidental by-product of biological development. The present attitude is that of looking downwards, not upwards; it is an attitude characterized by Lloyd Morgan's statement that: "In no case may we interpret an action as the outcome of a higher faculty, if it can be interpreted as the outcome of one which stands lower." Now man is certainly in many respects an animal, but he is the only animal which is influenced by the idea it has of itself, and this lowering of his status has contributed significantly to that deterioration of European life which would have surprised our nineteenth-century believer in progress. Ever since the belief gained influence, we have remained unable to establish the firm standards of behaviour needed to combat the possibilities of harm which frequently accompany modern technological achievements. The most common solution has been that of living in two separate compartments; of thinking as if everything were determined by external laws and of acting as if we were free and morally responsible. But this is obviously neither a secure basis for progress nor for life.

All these errors, to which the theory of evolution and belief in progress give rise, point to the place which these two ideas ought to occupy in our life and thought. The theory of evolution should be accepted for what it actually is—a means of dealing with external reality—and not as ultimate truth; and belief in progress should revert to its status at the beginning of the age of science—something for which one can work, an additional, but by no means all-important, support for our confidence that right deeds will contribute to the right development of mankind. Such a belief in progress, based on human values, cannot have the deadly effect of a law which, by working automatically, destroys the dignity of man. It may even be desirable to dispense with this belief altogether, as many ages did (it is

not found in most civilizations, even in our own it is a fairly recent growth). For, under the influence of this belief, we attach such importance to expediency, even when trying to do the good, that our attempts are frequently perverted. To concentrate on the human values as such might be preferable.

Only some such change of attitude could help us to cease living in two different compartments in which, because of the irreconcilable contradictions due to wrong thinking, we take refuge in order to be able to forget the one side (external laws) as soon as we embark upon the other (morality). Science and values, both properly limited in their application can exist side by side. But to bring about this change, we must become clearly aware of the nature of internal reality. Nothing less will display the limited scope of scientific theories, and, at the same time, enable us to trust in the specifically human qualities in man.

A condition of learning to think in this way is a clear understanding of the differences between the two aspects of reality, and it is therefore to some of the other differences that we shall now turn our attention. We have just mentioned that the theories upon which scientific knowledge is based are uncertain, with the consequence that it is a characteristic of external reality that final certainty cannot be achieved. Yet, nevertheless, certainty is the desirable goal. We have a genuine need to know how to perform operations and to predict results; but patience and difficult labours are necessary even for the limited certainty we possess. We work with observations and experiments, hypotheses and theories, thus acquiring a reliable body of knowledge of ascertained facts and proved methods, which is most valuable. But the new knowledge gradually acquired leads to further uncertainties which have to be tackled in the same way. Moreover, the theories upon which this kind of knowledge rests remain open to doubt and change; there is no fundamental certainty and this makes even the limited certainty which we have precarious. It is characteristic of

all scientific knowledge that, in spite of its reliable results, its very basis remains doubtful; all external knowledge, as a modern physicist has put it, is "suspended over an unfathomable depth."¹

In internal reality, there is not too little, but too much certainty, for all inner experiences carry with them an immediate feeling of certainty. We need not know anything about the processes by which we think and feel to know for certain what we think and feel. If I experience joy or pain, there can be no doubt that I do experience them. I may be mistaken about their source, I may be terribly frightened by a hallucination or by something completely harmless; nevertheless, my fear is real. The lunatic who is convinced that he is Cæsar is an extreme case, but every one of us is prone to succumb to some delusion which appears to him the most obvious thing in the world. The problem, therefore, which confronts us here is not how to achieve certainty, but how to discriminate between the false and the true feelings of certainty and so to discard misleading convictions and recognize those which can be properly accepted. We shall attempt the discrimination later. The main point is that here certainty is the starting point and not the aim; we do not have to establish it, but to make sure whether or not we may accept it.

This throws considerable light on the problem of necessity and freedom, mentioned in Chapter I. This, as we saw, is another of the age-old philosophical problems, and one which is of the utmost importance for everyday life. It has not been solved because the question has been wrongly put. Seen in the light of the distinction between external and internal reality the question has to be reframed with the result that a more precise and convincing answer becomes possible. This result, and the consequent disclosure of a path through the seemingly hopeless philosophical entanglement, confirms the approach as justified. However, we must beware of supposing that successful results in this respect

¹ W. Heisenberg, *op. cit.*, p. 93.

will imply that this kind of philosophy can solve all problems; on the contrary, as we shall see, because internal reality only becomes real to us when it is a matter of direct experience, the solutions to its problems only become possible through such experience. The help that philosophy can give in this sphere is limited to that of revealing the best approach, instead of, as is so often the case, making "confusion worse confounded."

An attempt to make indisputable general statements about external reality leads to the development of theories because these statements will be based on abstractions. In fact, we mainly use abstract concepts when thinking. Now and again we may turn our attention to a particular large square table of brown oak with four solid legs if we possess it or want to buy it, or to a particular small, crooked, but promising cherry-tree if we grow it in our garden, but usually we think in terms of tables and trees which have lost all but their most general characteristics. This is equally true of events; it is necessary to know that the striking of a match produces a flame, but we only pay attention to the particular match if it does not work or if it happens to be our last. We gradually advance from such simple beginnings towards more and more abstract concepts which describe less and less of the objects and events which we actually perceive. The table is an object; the wood of which it is made is material; this material is composed of matter; the striking of a match is an action, producing an event, determined by cause and effect. In the end, theories deal with such concepts as force and causality, or fields and energy, and they are translated into mathematical formulæ. To give scientific precision to such statements, the particular, as we saw, is excluded; the aim is generalisation. The usefulness of abstract concepts which apply to a great number of particular things has the effect of diminishing interest in the individual object or event; thus the typical instance is valued more than the particular because it helps us to deal with a large number of similar instances. We develop theories in

order to find general laws. Such laws are only useful if they show that a certain cause must necessarily produce a certain effect. In short, we try to establish the existence of necessity. If this is impossible, we try at least to establish a probability so great that it approaches necessity, and this attempt to bring probability closer and closer to certainty—whether it is in our daily affairs or in physics—is a further confirmation that necessity remains the aim of external knowledge.

Thinking in these terms is unavoidable in the realm of external reality. To be able to live, we have to master external reality, and this mastery is only achieved if we use the proper tools. It is difficult enough to have to remember different names for different persons; life would come to a standstill if we had to remember different names for every single table and every single tree. Abstractions, in fact, are essential. Similarly, if we are to perform any action successfully, we must know in advance what is likely to happen as a result; life would be impossible if every day we had to find out how to light a fire. We need to know what cause produces what effect. We also rely on the existence of this kind of order in the universe and nobody thinks, for example, when he takes a walk at night, that the stars may fall upon his head. In short, we must start with generalisations and aim at the knowledge of laws which establish a necessary connection between cause and effect, trying by all means to detect this kind of order.

Compelled, as we are, to think in terms which lead naturally to the formulation of necessary laws, it is not really surprising that we find it difficult to fit the idea of freedom into the framework of our thought. The idea of freedom cannot be deduced from external reality, it is foreign to it. Despite the introduction of the calculus of probability (as we have mentioned earlier and shall mention again in a moment) it is true to say that the better our grasp of external reality the more laws we can find to prove the invariable operation of cause and effect. Advances in external knowledge always lead in the direction of causality (or of

greater probability which means approaching causality more and more closely) and can never lead in the opposite direction of showing the existence of freedom. No one disputes that our knowledge is incomplete; causality cannot always be demonstrated—especially in the sphere of human reactions. It has therefore been suggested that freedom may have a place at those points where causality is apparently defective. But freedom cannot be discerned in this way, because its reality is too firm to rest upon the mere absence of contrary knowledge. It is operative as a positive principle of our experience independent of proof or lack of proof. Another suggestion arises from the inability of nuclear physicists to predict the movement of electrons. It must also be rejected for the reasons already given,¹ which it may be helpful to recapitulate at this point. Causality does not appear to offer an adequate explanation of the behaviour of electrons, and the phrase “freedom of the electron” has been coined. Thus it is suggested that here, at the very basis of matter, freedom exists, a freedom which may one day be shown to be at the root of human freedom. But the notion does not really help. The mere absence of causation does not entitle us to postulate freedom of choice—the ability to choose self-destruction or co-operation, to use our creative faculties or spend money. The hope that it will be possible to close the gaps in the chain of causality² as knowledge advances has been abandoned by some nuclear physicists and “probability” has been substituted for causality—and in practice to a large extent fulfils its functions. The result, however, is that the knowledge given by modern physics is less conclusive than that of classical physics where causality operates—which again goes to prove that necessity provides the only hope of complete external knowledge.

It should not be forgotten, as it often is, that the term

¹ See Chapter I, pp. 19-21.

² Such gaps are usually called accidents or contingencies; the very names suggest that the gaps are less important than events which are governed by law.

'probability' refers to our knowledge and not the actuality of the event. To consider an event as probable or improbable indicates some degree of certainty or uncertainty and gives no information about the actual event which is a simple fact. For example, if it is reported in a newspaper that a man fell a hundred feet from the roof of a building and received only minor injuries, whether we consider the event probable or improbable does not tell us whether in fact it occurred. Although, in general, there may be an overwhelming probability that the man would be killed, the simple fact could be that he was not. Many events which never take place seem probable to us and some which do take place may have seemed improbable. Probability, in short, cannot determine an event as causality does; it will not prevent us from searching for the cause which, to explain any event, we may assume to exist. If we speak of freedom, on the other hand, we mean that there has been freedom to determine the nature of the event.

Attempts to decide whether or not there is such a thing as freedom have appeared illogical and confusing because the methods used have been those appropriate to investigating external reality. They have seemed illogical because the subject under discussion—freedom—cannot be discussed in the terms adopted, and confusing because to conduct the investigation in these terms can only lead to the unconvincing conclusion that freedom does not exist. We have seen that the way which still remains open as logically consistent—to allocate to freedom a different, purely intellectual or spiritual sphere—is no way out, for freedom which does not issue in action is only sham freedom. To separate off from external reality a special sphere given over to the concept of freedom and then to treat this sphere in the way appropriate to external reality is insufficient. Freedom, to do justice to our experience, must be just as real as necessity.

If, however, we can apply to internal reality a way of thinking which is not conditioned by the methods appro-

priate to external reality, and if it can be shown that we are justified in starting from the certainties of personal experience, no such confusion arises. It may still seem surprising that since internal reality is inherent in our thinking we do not naturally know how best to approach it; but just as methods have had to be worked out to enable our minds to grasp more and more of external reality, so the methods necessary for understanding internal reality need to be separately determined. Moreover, as we have seen, success in developing our knowledge of the external world has literally gone to our heads. We no longer rely upon natural aptitude but attempt to force the concepts appropriate to external knowledge upon our diminishing grasp of the internal world. Man has learned to discover necessity in order to understand external reality; but he will never understand either internal reality or himself until he is prepared to start from the recognition that freedom exists. We have seen already that we are entitled to accept this certainty, for if we deny it we fail to do justice to our simplest actions. Dismissing freedom means dismissing responsibility, morality, love, trust between human beings, faith, it even means dismissing the mere possibility of discussing problems of behaviour in human or moral terms. It is doubtful whether those who dismiss it are really aware of these consequences. Reality appears to us under two aspects; to understand it we must pay attention to both; we have to recognize that we need both and cannot dispense with either.

It is only necessary to look without prejudice at the actual freedom of choice which we experience to see that its existence is no arbitrary assumption. Unlike external reality which hardly leaves any room for the idea of freedom, internal reality—in spite of all the painful external restrictions which often seem to make the exercise of freedom well-nigh impossible—offers, not too little of it, but too much. Certainly, we are hemmed in by circumstances, shaped by our inheritance, our abilities, our social status, deeply influenced by education and society, often unable to

discern the errors, the traditions and conventions which dominate us and make us appear free where we really act under compulsion; and yet our freedom is dangerously great. In fact, we are apt to complain that we are unfitted for so much freedom. It is uncomfortable to be free to err, to sin, to cheat, to murder. Would it not be better, we wonder, if our freedom were more restricted? Human affairs seem so disordered and too much depends on our decisions. And why, above all, we ask, is the suffering in the world so great and man so created as constantly to add to this suffering—by indifference, by cruelty, by crime, by wars? We may derive some comfort from the idea that suffering is really entirely due to external influences, but the answer does not satisfy us because we still feel responsible for contributing to suffering; would it not be better, we go on, if we could quietly accept our failings, without adding an apparently useless remorse to them, and should it lie within man's power to destroy the world?

The danger in possessing so much freedom is again confirmed when we discover that reality itself seems to be pliable and to yield at our approach. When we start from mechanical assumptions, we discover a mechanical universe within which we can perform remarkable mechanical feats; when we accept the theory of evolution, for example, everything seems to fit in with an evolutionary scheme; yet when we start from a concern with values, and only then, we discover a world of values which appears to have been awaiting disclosure. Starting from a concern with persons, we are confronted with a world in which this personal approach matters most; the religious view creates yet another all-embracing order which does justice to our expectations, even though this approach finds expression in many different forms of religion. Surely, we feel, reality ought to be less ambiguous, it ought to lead us to one truth. As it is, the choice of our attitude towards reality is a great responsibility; because reality seems to adapt itself to our approach, we have to be extremely careful how we approach it; our

philosophical preconceptions, whether they are conscious or unconscious, are of fundamental importance.

Because science and technology both depend on our knowledge of natural laws we normally think of them as more or less the same. Yet there is a profound difference between the two: science discovers natural laws and technology applies them—that is, technical achievements still depend on the working of natural laws, but they also depend on our using these laws for our own purposes. They no longer exist only in the external world, the world of nature, they have been brought within the sphere of human action, where considerations of freedom are in place. This shift is perfectly easy; here again reality seems to adjust itself to our intentions. Acting in freedom, however, carries with it responsibility. The development of technology has led to greater and greater achievements and we seem to have forgotten that we are responsible for the control of these achievements; we simply acclaim any technical advance as justifying itself. Too much freedom has led to a situation which we are unable to master.

No doubt there are people who will brush aside these considerations and emphasize, instead the influence of society and education, of heredity and childhood experiences. Psychological or sociological laws and so forth express human experience in terms of external reality and much of it can be understood in this way—much, but not the meaning of our direct experience of the interior world. Psychologists rightly point out that emotional repressions lead to disturbances of the mind, but they pay little heed to the suppression of internal reality which is responsible for a more serious kind of disorder. Emotional balance is certainly of the utmost importance and is a condition of mental health in much the same way that the proper circulation of the blood is a condition of bodily health. Viewed in terms of external reality, the emotions can be seen as relating this reality to ourselves, and though it may be of value to us to have an objective understanding of the mechanical

aspect of our emotions they do not thus provide a key to internal reality. By standing outside our emotions we learn to control them; but only through a full inner experience of feeling can we exercise this control meaningfully.

However powerless we may admit ourselves to be by reason of external influences, we still consider irresponsibility to be a serious failure of personal development. The excuse that we are entirely the creatures of external influences would logically lead, if it were accepted, to all wrongdoing being condoned. But the murderer, whatever his background, is culpable unless he was unable to form a judgement about his act.

So far I have tried to elucidate the difference between the two realities by discussing how certainty and the problem of necessity and freedom figure differently in the context of each reality. To conclude this discussion, another characteristic difference between the nature of the two realities can be now taken into consideration.

In external reality, as we have said, life would come to a standstill if we could depend only on what we were discovering anew each time. This is not true of internal reality where, owing to the nature of feeling, nothing is repeated exactly. Feelings cannot be indefinitely preserved unless they are re-experienced. We cannot persist in the same state of feeling over a long period of time; there are too many calls on our feelings as life goes on, to allow us to dwell exclusively on any one of them. It is constantly happening in our lives that even a strong feeling is temporarily pushed into the background—love for a husband or wife, for instance, by the interest in our daily task, by the feeling of sympathy aroused by somebody we meet, and so on. At first, the original feeling will not diminish, but if we take it for granted for too long, without experiencing it again, it will become lifeless, a mere abstract concept. It has to be experienced anew, and as our situation has changed in the meantime, this also means that it is necessarily experienced in a somewhat different way. The

popular saying that absence makes the heart grow fonder indicates the kind of change of condition which, because of the nature of feeling, is essential if it is to retain its significance. Therefore, since internal reality involves our feelings, we can only seize it by experiencing it freshly again and again, that is, by experiencing it in the circumstances of the present and thus differently each time. This point has been made several times before, but its importance justifies the reiteration.

Mechanical repetitions kill our awareness whether in external or internal reality, but while, as we have seen, such repetitions enable us to deal with external reality, they vitiate internal reality. We all know that if, for example, we look at the same pictures in our room every day, we no longer experience anything, though when we acquired these pictures they probably gave us great pleasure. Occasionally, we see them suddenly as if for the first time and experience a new pleasure, so that the pictures come to life for us once more. Similarly, many people begin enthusiastically serving on a committee to help the needy, but soon grow overwhelmed by the large number of cases; their work becomes bureaucratic, they no longer feel the human experience; in the end, lacking the vocation for this kind of work, they become indifferent or even cruel as the result of its repetitive character. How many marriages have broken down because actions, originally inspired by love, gradually became a series of mechanical repetitions, because one could not simply rely on repeating the same actions for ever! Internal reality is real; the pictures, the deeds, the love are of themselves good and beautiful, but we can only grasp their value by participating in it with our feelings. It is the constant change of circumstances which necessitates the continual modification of the way in which feeling is experienced. We can never rely on what we have done before. This also applies to our exercise of free choice; obedience to moral laws, if they are accepted as rigid laws of behaviour and not adapted to each new situation, can

transform them into the very opposite of what they ought to be, into the expression of rigidity rather than of love.

I hope I have said enough to show the difference between external and internal reality. But, up to now, it may appear that the acceptance of internal reality only involves new burdens, whereas, in fact, finding a foothold in internal reality is, at the same time, a source of happiness. To be free means to act in full accordance with our true nature and under no outside compulsion whatever; human experience can know no greater sense of liberation from all burdens than in the certainty that we are entirely ourselves. Moreover, this liberation has a reciprocal effect: the experience of freedom makes us aware of our true nature, and in expressing our true nature the experience of freedom is enlarged. The suggestion that hope of experiencing this profound feeling of fulfilment makes us believe in freedom as a kind of "wishful thinking" is not tenable, for it cannot be imagined beforehand. To accept freedom is first to accept a responsibility which we tend to shun. The need constantly to re-affirm or modify feeling in the perpetual shift of experience, moreover, often involves a willingness to endure a sense of insecurity of our personality of which we are naturally frightened. We have to expose ourselves rather than seek shelter. Nor does the experience of freedom depend on our will; it is often brought about by inexplicable inspirations and intuitions. It makes us aware of the limitations of our control over ourselves. (In this, as we shall see later, it is very similar to grace which may also look severe before it is actually known). But, once we have accepted freedom, we do not feel this awareness of our limitations as merely a negative restriction, as with external ones, because it helps to show us our true nature and thus to give us something of great value. We feel that it is only within these limitations that internal reality can develop fully. We can even find liberation in recognizing the most painful inner compulsions—blind instincts or evil impulses—if we

suddenly see them in opposition to our freedom and our access to internal reality.

All this foregoing chapter has been based on the acceptance of limitations, particularly limitations of our knowledge, which result from the fact that there are, for us, two aspects of reality which make any unitary method or system impossible. We have to discuss these limitations next, to see the implications of what we have said, and to be able to appreciate the true scope of knowledge.

CHAPTER IV

LIMITATIONS OF KNOWLEDGE

THE fact that our knowledge is invariably limited could be expressed—somewhat paradoxically—by saying that there is no thinking without thinking. This means that, when we think, we have to use what we could call the mechanism of thought; this mechanism works according to certain laws and therefore our knowledge contains, not only the impression which reality makes upon us, but the effects of these laws as well. We know reality, not as it is in itself (apart from our knowledge of it), but as it appears to us.

The laws of thinking have been discussed for many centuries, especially since the time of John Locke, and they have been most clearly formulated by Kant. Locke recognized that we never know things in themselves, but only as the ideas which we have of them. He saw that since the instrument by which we grasp things is our thought-process, we perceive them only inside our minds. The image of the blotter on my desk is situated in my mind, it is not itself the blotter nor is it (as the blotter is) on my desk. If we know only ideas, however, the fact that we do not know the things themselves is difficult to reconcile with the fact of our ability to deal with them effectively. Locke tried to overcome the difficulty by adopting the simplest commonsense solution. He described the human mind as a blank sheet of paper upon which reality writes down, clearly and reliably, what is and what happens.¹ The activity of the mind, working on such trustworthy material, is of only secondary importance. This simple solution, however, did not work; it led its supporters into

¹ John Locke, *An Essay Concerning Human Understanding*, Bk. II, ch. 1, para. 2; Bk. IV, ch. IV, para. 3.

increasing confusion, and many inconsistencies proved the impossibility of relegating the activity of the mind to a second place. It became clear that the laws of the mind's working determine our knowledge just as much as whatever we receive from outside. Hume, for instance, attacked Locke for presupposing an all-inclusive causal law; how, he asked, could the single and isolated imprints made upon our minds ever lead to all-inclusive knowledge of reality? Others responded by overrating the mind, seeing it, not as the organ by which we grasp reality, but as its creator.

Fortunately we need not enter into these arguments, for Kant showed conclusively that we must pay equal attention both to the impression reality makes upon us and to the laws of thinking. "Perception without concepts is blind," he says, for we must translate perception into thought by means of concepts which are created by the mind; "thoughts without perception are empty," for we must receive the material for this process of creation from outside.¹ The simplest object (say, a ball) is only recognized with the help of a concept; without concepts we have only a flux of vague impressions. A concept, on the other hand, (say, circular or square) acquires meaning only when it is, and so far as it can be, applied. Kant showed beyond doubt that we can never know reality itself—that since we are unable to establish a third point from which to compare reality as such with our knowledge of it, we have to accept the fact that our knowledge is not direct and absolute, but subject to the restrictions imposed upon it by the mind. Pascal expressed the same conclusion in another way when he said: "The last proceeding of reason is to recognize that there is an infinity of things which are beyond it. It is but feeble if it does not see so far as to know this."²

Yet something very astonishing has happened. Kant's main conclusions in this field are so convincing that the theory of knowledge can be considered as the most certain

¹ *Critique of Pure Reason*, p. 75 of the original 2nd ed.

² *Pensées*, No. 267 (Everyman Ed.).

part of philosophy. Nevertheless it has had very little influence. Scholar and man in the street alike are still prepared (if they care to think about it at all) naively to accept their knowledge—or our knowledge in general—as immediate and direct, and to disregard any influence of the “knower” upon what he knows. In some ways this is understandable; it is difficult, even disconcerting, if thinking has to concentrate on itself; it is hard to consider how we think. Nor is it of obvious practical use. If we see an apple and stop to ponder the question how we happen to know that an apple is there, we may never pick it. But there is still something astonishing in the neglect of our knowledge about knowledge. Scientific theories do make themselves generally felt; even the quantum theory, though understood by very few, influences our general way of thinking. Why has this not happened with the theory of knowledge? There is an obvious answer: because the philosophers are not in agreement about it as most scientists are about the quantum theory. The lack of unanimity arises because some philosophers succumb to the naïve view of laymen or at least to certain assumptions of science. The matter is, of course, not quite as simple as this answer suggests, as we shall see later when discussing more fully the reasons why this effort to discover the boundaries of knowledge is required of us.

First, however, let us look more closely at these boundaries. Since all previous efforts to establish them have been insufficient, we shall not summarize the old arguments, but try instead to discuss the scope of knowledge in the light of present-day experience and in the light, too, of what we have said so far.

The major stumbling block for anyone who wishes to question the validity of knowledge is the indubitable fact that natural science has led to such amazing discoveries which, though some of them are potentially dangerous, have nevertheless advanced knowledge beyond the wildest hopes of previous generations. Moreover, scientific discovery has gained momentum and there seems little doubt

that further and practically limitless advances are possible. Above all, scientific knowledge works; its discoveries have not remained theoretical, but have led to technical inventions which are just as remarkable as the fundamental discoveries themselves. It almost looks as if this proves that such a knowledge must be direct, immediate, absolute—whatever we choose to call it. How else could it produce concrete results? Our statements about the uncertainty of theories appear pedantic beside the certainty of these results. At a touch of a switch we get light, yet this is only one of the simplest examples of the reality and power of our knowledge.

Here, then, is a line of thought which attacks one of the fundamental positions of my argument—namely, that external reality is essentially one-sided. To construct a machine which works requires a sufficient knowledge of the forces of nature to harness them. Exemplified in such modern machines as an aeroplane, a radar telescope or an “electronic brain” knowledge of this order seems to defy the attempt to draw boundaries to it and even suggests that our reservations about external reality will prove presumptuous and futile. In any case, as we know more about the mechanism of a machine than about that of the human mind, it seems paradoxical to say that our certainty about internal reality is greater than about external reality.

As the basis of the case for the absolute validity of external knowledge lies in the statement “it works”, let us see what this statement really implies.

It is not difficult to realize that one-sided and limited knowledge may sometimes work better than complete knowledge. We have already mentioned some examples of this; abstraction, for instance, enables us to perform certain tasks better, even though it excludes much of the knowledge we possess. If we have to drive to Scotland, say, we shall drive better if we pay no heed to the beauty of the landscape or to anything which distracts attention—in other words, if we “abstract” all those facts and

happenings from the total situation and concentrate on our driving. But it should not be forgotten that in this way we are also renouncing possible knowledge which may in other respects be just as important. It is often equally helpful to reduce actual events to typical "cases" about which we can generalize. Generalizations are for the most part more useful than particular knowledge, even though they contain, not more, but less knowledge than the consideration of individual cases which are simplified to make generalizations possible. It may be argued that we merely exclude unimportant details and concentrate on essential aspects of the matter. That may be correct, but what do we mean by "essential"? Are we not assuming that abstract principles are more important than the world which we actually experience? And does this not represent a one-sided concentration either on practical efficiency or on consistent explanations? Only on such an assumption is this kind of knowledge more significant than any other; otherwise it is clear at once that the process of acquiring the knowledge impoverishes our experience. We go farther when we travel in a car instead of walking, we can visit more towns and countries, but we miss the flowers and butterflies and people; the landscape cannot "sink in"; we are more and more alienated from nature. However, even if we prefer abstract knowledge, on the grounds of its efficiency, as truly "essential" and accept or overlook the impoverishment, we cannot deny that such a concentration is made possible by inherent or self-imposed limitations of our knowledge.

The following example may show that even real lack of knowledge can be of help. The calculus of probability is used in nuclear physics and by insurance companies. In principle, it works equally well in both cases. It is more precise in nuclear physics because there are infinitely more electrons than men, but if insurance companies dealt with the same numbers, their results would be just as exact. Even so, their profits prove their calculations to be reliable enough. These can be upset by unforeseen catastrophes,

but so can the conclusions of the physicists; such events as earthquakes cannot be predicted by the calculations of either. So far as their methods are concerned, there is no essential difference. Yet we accept only the statements of the physicists as fully satisfactory; we are satisfied to know that a certain number of electrons will move next, without knowing which will move. We are not equally satisfied, however, to know that a certain number of people will die in a certain country next year. In this case we want to know who will die, whether the number includes some of our relatives or friends, whether it includes ourselves. The mere number means little or nothing to us. Even a shareholder of the company with an interest in its profits will look beyond mere numbers if for any reason he thinks that they may include himself or his wife or his son. In short, we are content with the calculations of the physicist because we know so little about electrons; if we knew as little about men, if they were no more individually identifiable than electrons, we could handle them in the same way and accept statistics as the revelations of prophecy. This seems adequate evidence that restrictions of our knowledge, far from preventing it from working well, may be essential for satisfactory results. The conclusion is confirmed when we compare physics with psychology—the exact knowledge of the composition of material objects with the much less exact knowledge of man's mind which we know better, namely from inside.

But do not experiments prove more than the mere usefulness of the method of abstraction? The fact that we are able to cause a process and to predict its results seems to show that we have full knowledge at least within the sphere of the experiment, however limited it may otherwise be. Yet here, too, one-sidedness and frequently even an artificial restriction of knowledge can be seen. When we consider how experiments are conducted we can, according to Professor A. D. Ritchie, discern three factors:¹

¹ *Civilization, Science and Religion*, p. 120 (Pelican Ed.).

(1) "*Strictly causal factors or conditions which make the process what it is.*" To discover these is the actual task of the experiment, and to this end an experiment is so conducted as to exclude those irrelevant and disturbing factors which accompany the process in nature. If we want unambiguous answers, we have to ask the right questions—that is, we have first to develop theories to enable us to isolate the phenomenon under observation from many others which are in fact connected with it. Only if we do this shall we, so to speak, see it in its pure form and receive a clear answer. We are not considering all we know, but only a carefully selected part of our knowledge.

(2) "*Secondary or complicating factors that tend to obscure essential features.*" It is these which have to be excluded first. The most famous example of such an exclusion is Galileo's discovery—so important for the theory of gravitation—that lead and feathers fall with the same speed if air-resistance, a secondary factor, is eliminated. No observation could ever have led to this discovery; great intuition was needed to recognize that the factor which causes them to fall at different speeds is air-resistance. Intuition of this order is often needed to isolate processes which never occur in isolation. This is particularly clear in Galileo's case, because a vacuum (wherein his theory could have been tested) had not yet been invented, so that Galileo had to devise a most complicated experiment to make this theory appear at least plausible. Thus unproven assumptions turn out to have been essential for the planning of the experiments.

(3) "*Irrelevant factors that make no difference at all.*" To refer to Galileo again—he emphasized that it was irrelevant whether he or someone else made the experiment, whether in Pisa or Padua, whether on a Monday or a Thursday. All human factors, that is, have to be eliminated as well; scientific observations, as we have seen before, must be independent of the observer.

An experiment, therefore, is a means of isolating one

aspect of an event or total situation, or rather of obtaining a greater clarification of such an aspect than can be achieved in normal life. It implies, as the development of physics shows, the reduction of everything, particularly of qualities, to quantity, so that all things and processes can be expressed in mathematical terms. But we cannot actually experience anything without quality. Colours, for instance, are the most general quality we know; few things are completely colourless. But in science colours are no longer observed as such; they are reduced to wave-lengths. Only by so reducing them was it possible to discover invisible colours, infra-red and ultra-violet. The achievements are amazing, but the loss is evident too. The theory of colours tells us nothing of their quality; any blind person with the necessary intellectual equipment can understand the theory, but he will not acquire the slightest idea of what a colour is like. Where natural limitations are insufficient to make natural science work, artificial ones have to be brought in.

Once the process of elimination is satisfactorily achieved, whatever has been eliminated is frequently disregarded, particularly what we have just called the "irrelevant factors". But they are, from the human point of view, the most relevant; there would, after all, be no science without the "irrelevant factor" that there are scientists. This habit of overlooking these factors has led to the strange attempt to explain the universe as if men were onlookers introduced from outside, and to the equally strange belief that such an explanation is complete. Not only are we obviously part of the universe, but it is we who know it, and neglect of this fact must needs lead to nonsensical conclusions. Let me quote another famous example together with its convincing refutation. It concerns the great astronomer Laplace who, at the end of the eighteenth century, denied the existence of God because he could not discover him with the help of his new powerful telescope:

"Laplace swept the heavens with his telescope, and by doing so could find no trace of God, or of a spiritual world.

Had he looked at both ends of his telescope, taking into account the activity of the observer as well as his physically interpreted observations, the result would have been different; but physical science deals with an aspect of experience in which no account is taken of anything to which physical axioms are not applicable; and this excludes consideration of perception or of how what we perceive is of value, or is spiritually significant".¹

The laws of thinking, besides making natural science work, also prevent it from conveying absolute knowledge. Artificial restrictions of knowledge are necessary and helpful because they enable us to formulate what we know according to the requirements of these laws, making it possible to apply them without difficulty.

New theories replace old ones which then become obsolete and for this reason we rarely pay attention to the history of science; but it is here that the role of the laws of thinking can be most clearly seen. For instance, that significant incident in history—the Church's conflict with Galileo²—can serve to illustrate what the existence of these laws implies.

The first major step towards bringing modern science into being was the replacement of the ancient Ptolemaic system by the Copernican; according to the later system the earth moves round the sun rather than the sun round the earth. But it was not because experience showed the Ptolemaic theory of "epicycles" to be inaccurate that it was abandoned by the Copernicans; on the contrary, the epicycles were so exact that the new theory was based on observations and calculations derived from them. The Copernican system was, in fact, a completely new attempt at an astronomical explanation of the physical universe

¹ J. S. Haldane, *The Philosophical Basis of Biology*, 1931, p. 7. This is by no means out of date; Laplace's argument has been repeated almost literally ever since. Cf., e.g., Fred Hoyle, *The Nature of the Universe*, 1950, pp. 116-7.

² The following account of this conflict is partly based on E. May, *Am Abgrund des Relativismus*, Berlin 1941.

made because the old theory, despite its exact results, had become incredibly complicated and the scientists sought some simpler explanation. The underlying significance of this change, however, was recognized by Galileo when he demanded that the search for an all-inclusive explanation, for a "Prime-Mover", for a "First Cause" of all motion, should be dropped and scientific investigation restricted to the observation of existing motion.¹ It was this restriction which introduced the amazing development of modern science.

It meant, in fact, that an explanation aiming at complete truth was abandoned in favour of the establishment of the laws of limited validity which would lead to working theories. The Copernican system, nevertheless, was hailed as a great new truth. This attitude gradually incurred the opposition of the Church, defending what it believed to be the real truth—namely, that because Christ appeared on the earth, the earth must be the centre of the universe. Finally, as we know, Galileo was forced to recant. Shortly before the final proceedings, however, one of the cardinals occupied with the case—Cardinal Bellarmine—attempted to bring about an agreement by suggesting that Galileo should declare that he spoke "ex suppositione". The theory should be considered as a theory only, as a mere mathematical device for making astronomical calculations more exact, and the Church should accept this as a justifiable method. His suggestion was rejected by both sides. They missed a great opportunity.²

I think that today we can appreciate the wisdom of the Cardinal. According to the theory of relativity, it is no longer necessary to say that the earth moves round the sun;

¹ Or, as Francis Bacon put it: "In physics they (the final causes) are impertinent . . . and hinder the sciences from holding their course of improvement." *The Dignity and Advancement of Learning*, Bk. III, ch. 4.

² Later, when Cardinal Bellarmine became Pope, he was so infuriated by Galileo's refusal that he became his most energetic prosecutor. This does not invalidate his original insight, but only makes it the more regrettable that this opportunity was not seized.

this is simply a matter of convenience because the assumption makes it easier to calculate the orbits of the other planets.¹ If a new mathematical system were developed which made calculation simpler the other way round, there would be no objection to reverting to the assertion that the sun moves round the earth. Certainly, the movement of the earth in relation to the sun, which produces day and night, is an ascertained fact, but it is not an ascertained fact that the sun is the centre of the planetary system; for we know only how celestial bodies move in relation to one another. The distinction between the factual and theoretical elements in the Copernican system is strikingly illustrated by the fact that the momentous change from the Ptolemaic to the Copernican system had no influence in reforming the Calendar.² Even this so-called truth, probably more generally accepted than any other proclaimed by science, has thus turned out to be no more than a theory, a method of calculation. Yet it was for such an impermanent and imperfect truth that the fateful struggle arose between science and religion, the consequences of which we still suffer today. The churches have been on the retreat ever since. But the scientific advance against which the churches have defended themselves and from which they have suffered defeat, concerned as it is with theories and not with final explanations, does not in fact clash with a religion of revelation. Clearly, the sound development of both science and religion has been impeded. Scientists made claims which science could not justify; by regarding scientific thinking as the only possible way of thinking, they developed another of those mistaken all-inclusive meta-

¹ "On the most modern scientific theory there is no absolute distinction between the heavens revolving round the earth and the earth revolving under the heavens; both . . . are (relatively) right." Arthur Stanley Eddington, *Science and the Unseen World*, p. 51.

² "The case for the Copernican theory is not that it is right or true in some absolute sense, but that it was the only point of view from which progress could have been made at the time. In short, it had the virtue of simplicity and was demonstrated with great skill by Galileo." Fred Hoyle, *The Nature of the Universe*, see pp. 15-17.

physical systems. On the other hand, most of the representatives of religion, instead of pointing out that science was necessarily limited by the limitations of knowledge, tried in vain to discredit scientific achievements. These indiscriminate attacks on all science had the effect of confirming the scientists' mistaken claims to have developed an all-inclusive system. The consequences of overlooking the contribution of the laws of thinking to natural science are indeed far-reaching.

The Cardinal's insight was not miraculous; both Galileo and the Church were in a position to recognize the dependence of science on thinking, but they overlooked the obvious just as we do at present. Galileo's theories were thought out before his experiments were begun. In fact, the actual results of the experiments, taken at their face value, seemed to disprove the theory and support those scientists who, opposing Galileo's views on falling objects, still clung to Aristotelian ideas. The behaviour of the objects dropped from the leaning tower of Pisa actually showed that heavy objects fell more quickly than light ones. Galileo's opponents could mockingly say that it was easy to assert that this difference in speed was due to a secondary cause, but they might be excused for thinking it an invention of fancy, for observation did not show it. Galileo, however, was right, which shows that thought—that is, an idea—comes first, making way for improved interpretations. A disciple of Galileo, the great scientist Torricelli, went so far as to write—with fine disdain—a few years later (in 1646): "And if the balls of lead, iron, stone do not obey the established law, so much the worse for them; we shall say in that case that we are not speaking about them."¹ Elaborate experiments were nothing new, even the alchemists had undertaken them, but the great increase in knowledge came about as a result of pre-suppositions which were gradually modified in the light of what can really be known, or rather by avoiding what is

¹ Quoted by E. May, *op. cit.*, p. 142.

outside the scope of knowledge. Men were taught science, not by experience and experiment, but by making better use of their intellectual equipment, which led to new experiences and better experiments.

History also shows that theories were accepted because they worked, which was then regarded as sufficient proof of their truth; but that it is not so is demonstrated by the fact that theories are discarded sooner or later in favour of others that work better. Since the days of Galileo no theory was ever accepted that did not work, but a vast graveyard of discarded theories (where many of Galileo's and even Newton's great achievements lie) bears witness to the fallibility of this virtue as a test of truth.

All of them worked at the time and some proved extremely helpful in the further development of science. But correctly ascertained facts remain unchanged whatever the explanation; the calculations concerned with the falling of a stone, for instance, give the same results whether we apply the theory of Galileo's opponents, Newton's theory of gravitation, or the theory of relativity. Facts are no more than a check on theories and theories are accepted so long as they are in accordance with facts. Fact itself, therefore, cannot prove that any theory represents final truth; it is open to further interpretations. In this connection it is possibly of some significance that the word "fact" is derived from the Latin "facere", to do; facts are not simply objective but are created by our doing something with impressions we receive; they are thus dependent on the laws of thinking.

All these assertions concerning the limitations of science do not imply any contempt for science; on the contrary, an attitude which fails to give due place to the knowledge with which science is concerned is shortsighted and unrealistic. Moreover, such necessary reservations actually benefit science itself, by preventing excessive expectations leading, as we sometimes see them doing now, to avoidable disappointments.

I am perfectly aware, however, that even after we have considered all these examples we shall have some difficulty in seeing science in correct perspective, in preserving a sense of proportion in face of the impressive evidence of technical achievement. But I started by saying that an effort is required—as it always is when we have to shake off the influence of a wrong tradition—and by now I hope it has become clear how important this effort is. Our chief support in making it must be our actual knowledge of internal reality, which we can never afford to ignore any more than that of external reality. But before leaving this discussion of science, two further examples will help to show, from a slightly different point of view, the imperative need to acquire a more detached view of science.

It is still common to talk with scorn of the alchemists and their folly in hoping that lead could be transformed into gold. What a fertile field this was for trickery and swindling. But their experiments (and they made many and very elaborate experiments) were based on a plausible view of experience; from observation, it was not difficult to see that by heating substances, mixing them and distilling them new materials utterly different from the original ones could be produced. Many new inventions, such as those of porcelain and gun powder, confirmed the alchemists in their views. Nevertheless, their hope of producing gold was mistaken, but their mistake was not due to lack of observation, nor to inaccurate measuring and weighing, but to wrong, semi-mystical theories. When modern chemistry came into being it was not because of the introduction of weights and measurements, for these had been used before, nor because of the cumulative effect of observation, but because of a sudden change of direction, a new start. Lavoisier, with whom modern chemistry begins, was influenced by the ideas of contemporary physics, among them the theory of gravitation; he abandoned mysticism and belief in invisible elements and reconciled himself to accepting boundaries to his knowledge. In his

case this meant, in particular, the acceptance of basic elements which could not be further divided nor transformed. The most recent developments in nuclear physics, however, have made it possible to divide elements and to transform one into another; the foolish hopes of the alchemists have suddenly become quite reasonable. Has knowledge, then, come full circle? Are we back where we started? It would appear so if we accept theories as dogmas and believe that they conform to ultimate truth. In reality, knowledge has advanced, but this can be appreciated only if we see theories for what they are and treat them as useful tools.

My second example illustrates the danger of accepting scientific theories as absolutely true statements and of applying them in spheres for which they were not intended. This happened with the theory of relativity, from which the popular conclusion arose that everything is relative, that there is no absolute standard of knowledge whatever. There may be grounds for holding the belief that everything is relative, but the theory of relativity does not provide them, for the theory is based on the assumption that the speed of light is constant and that there is no greater speed—that is, on something which, in contrast to all relativism, is absolute. This is the more noteworthy because the theory itself provides no means by which to discover a constant; for time and space, by which we measure it, are regarded as fluid. The introduction of a constant is an assumption which limits relativity, and it is necessary because our minds are unable to conceive of something relative except in terms of something absolute with which to contrast it. We cannot observe the movement of the earth directly because we move with it; it can be observed only with the help of stars which, compared with the earth, appear to be at rest. This essential limitation of the theory, however, has been disregarded because we like to take scientific results at their face-value. The consequences are disastrous, for the theory seems to lend support to that idea of

general relativism which is undermining our social fabric, as well as our existence as individuals, by spreading uncertainty about moral standards, about justice, human behaviour and faith, although it is in no way connected with them.

The question remains: why, if the theory of knowledge, which enforces these and other undeniable truths, is so demonstrable, has it exerted so little influence? The answer lies in the misdirection of our desire for absolute knowledge. There is such knowledge, but it is of a different order and it demands the acceptance of a discipline of an altogether different kind — personal participation, responsibility, obedience in freedom. Science, because it seemed to promise unrestricted knowledge at a lesser cost, was embraced instead, just as in previous ages all-inclusive metaphysical systems were eagerly accepted.

Here we must return to our distinction between external and internal reality. In external reality we have knowledge which can be systematized and constantly enlarged, but which is bound to remain relative—that is, conditioned by the laws of thinking. In internal reality we have glimpses of an ultimate knowledge, but they remain dependent on our actual personal experience of them; they cannot be formulated once for all, and therefore they cannot be built into a coherent system. We have on the one hand comprehensive knowledge, and on the other hand absolute knowledge, but never both at the same time.

The laws of thinking which we have so far discussed apply to all external knowledge. They condition our knowledge which is thereby simplified—ultimately, by reducing external reality to abstractions. In this way, everything conforms to the laws of thinking and there seem to be no boundaries to our knowledge, for we can fit everything into a scheme shaped by our mental processes. But this very scheme is the limitation; the more closely we approach to a perfectly working system, the more we rely on the laws of thinking and the more its presuppositions obtrude. This

reliance is, for instance, precisely what causes the difficulty of understanding modern physics. Modern physics deals solely in abstractions which are understandable only in mathematical terms; it does not allow us to establish any relationship between its formulæ and our experience of the visible world or anything which we could visualize. The attempt—which was made in the case of the theory of relativity—to reconcile these abstractions in some way with our everyday experience has now been given up as impossible. Yet modern physics is the most advanced knowledge of external reality which we possess.

In internal reality we start from certainties; here we have direct knowledge. But its absolute certainty can only be experienced, it cannot be fully expressed. The formulation of experience in terms of abstract ideas can be very helpful, but only if we remember that they are abstractions which have to be brought to life by recollection of the experiences and are not conclusions sufficient in themselves. We can never prove in purely intellectual terms that we are really free and responsible for our actions; otherwise there would be no theories to deny it. It can, however, be shown that all other explanations are incomplete and fail to account for the actual experience of freedom and of moral compulsion. Experience is the only proof, no theory will ever account for them. Having acknowledged freedom, it is certainly necessary, when acting upon it, to submit to moral laws; but if these laws are accepted as rigid rules and applied without regard to our true motives and the actual specific situation in which we find ourselves, they can—especially if they are used to judge others—make those who apply them merciless and immoral. It is not enough to obey abstract laws. The fact that in moral teachings there are a number of definite prohibitions, but few positive commandments, and that these are couched in such general terms as "Thou shalt love thy neighbour as thyself," is a characteristic which from being puzzling becomes significant when seen in this light. We can be specific about

what we ought to avoid, but the positive law has to fulfil two apparently contradictory demands—it must be unconditional, because morality is unconditional, and yet it must leave room for the participation of our feelings which alone can transform moral teaching into absolute certainty. Any detailed elaboration of the positive law, by excluding personal participation, is therefore bound to falsify morality.

Obviously even the Bible has little significance for somebody who does not see that it concerns him and who is not prepared to accept its truth. He may find wise or beautiful sayings in it, but the Bible is not meant to be a collection of sayings. It is certainly possible to adhere to the strict letter of a creed, but this is clearly insufficient. Anything which can be called truly absolute knowledge—knowledge, that is, which is independent of any further support—can come to life and convince us only when we test it by our individual effort of full participation.

This dependence of internal knowledge on actual experience also explains why it can make no consistent advance as does the other, systematic external knowledge. Most things which are worth saying have probably been said already, but the record is not enough because internal knowledge depends, not on words or theories alone, but on their renewal in the person. In a later chapter we shall have more to say about this.

Here again, in internal reality, we do not escape from the laws of thinking, but different laws apply, for we are aiming at the opposite of abstraction. Translation of experience into thought leads to generalizations which, as we have seen, cannot do justice to experience; internal reality has to be expressed in a particular way which appeals to our feelings and experience. If, for instance, somebody claims to live on a mystical plane and talks about it in an abstract, even if elaborate, way, but is obviously striving for power, or devoted to money and luxury, we shall be unable to believe and understand his mysticism. Mere words,

however correct or wise they may be, are never sufficient. Moral laws, of which we have just spoken, remain external prescriptions until we know a good man or witness a good deed which opens to us the full experience of love. Stories of unusual deeds of self-sacrifice or devotion have immense power over the imagination because the personal and unique elements in them throw into sharp relief what really matters. For us, as persons, it is those most personal embodiments of a virtue which make the greatest appeal. It is true that these stories become stale when repeated too often, but this is because, as we have emphasized before, internal reality has to be experienced constantly afresh. External knowledge works by means of repetitions, cases, generalizations; internal knowledge must, on the contrary, concentrate on the particular and individual, for, in spite of the inevitable repetitions which fill much of our lives, internal reality only becomes real to us when it is seen embodied in a unique manifestation.

In other words: we can only think of reality in terms of its division into two. If we could enlarge our absolute knowledge, as opposed to our comprehensive knowledge, there would be one knowledge; all the elements of it which we have mentioned so far—freedom, responsibility, morals, love—point towards a unity. But each experience on which this absolute knowledge depends lasts inevitably for a short time only; we cannot intentionally keep a feeling alive for very long; and therefore absolute knowledge in internal reality is, in a different way, just as severely restricted as external knowledge, for it is manifested only through constantly changing experiences. It is for this reason that we need a different kind of knowledge to deal with the needs of routine day to day living—our jobs, our household duties, some of our social life—much of which is highly repetitive and can certainly be considered as a manifestation of external reality. We have to accept the fact that there are, for us, two aspects of reality. We cannot unify them, for they are not subject to the same laws of thinking, and we cannot

fill the gaps in our knowledge of one reality with that of the other. Generalizations work in external reality, because they lead away from specific experiences to abstract theories which fail to do justice to us as individuals. On the other hand, the embodiment of a principle of inner experience requires—like all embodiments—an external form. Nevertheless, although internal reality then breaks through into external reality, it cannot provide the missing basis of ultimate knowledge because personal participation is not carried over to external reality. We are unable to surpass the limitations of our knowledge; wide scope and great depth exclude each other. We cannot bridge the gulf between the two realities.

Perhaps we are now in a position to see a further and deeper reason why the theory of knowledge has largely failed to make sufficient impact. Concerned mainly with external knowledge, it correctly denied the possibility of absolute knowledge there, but it offered no alternative. Yet men feel that they possess some absolute knowledge and are unable to rid themselves of this feeling. They have therefore rejected or ignored the theory as a whole and embraced, without reservations, a system of knowledge which seemed to offer comprehensive explanations. For human desire has always enlisted men for that hopeless quest whose unattainable goal is the possession of knowledge which is both comprehensive and absolute. This mistaken decision in favour of comprehensive explanations was made easier by the fact that the boundaries between external and internal knowledge (and the distinction between knowledge and faith) had already been disregarded by theologians who claimed to give a complete explanation of the universe. Those to whom religion appeared obsolete replaced it by science and, blinded by their opposition to metaphysical religious systems, overlooked the equally important deficiencies of the scientific system where again much necessarily remains inexplicable. Faith is, of course, a different matter since it is not knowledge and must not be confused

with knowledge; for the present it is sufficient to mention here that it is because of the limitations of knowledge that faith becomes necessary. Unless we pay attention to faith in relation to knowledge, the theory of knowledge cannot work properly.

Kant, more realistic than other philosophers, showed that there are two kinds of knowledge, but he restricted the sphere of internal reality to morality alone. Although his statements about morality are admirable, they fail to do full justice to what we really know. He expressed the hope that the limitation of external knowledge would lead to due importance being given to morality, because it was only there that absolute knowledge could be found; he praised "the intentional arrangement made by nature"¹ by which we were cut off from ultimate external knowledge, for thus our thirst for something absolute ought to force us to look for it where it could be found and where it was, in fact, more essential, for it was our moral behaviour which mattered most. He also saw that this implied that there are limitations of internal knowledge, for morality only tells us what ought to be done and not what exists, but he believed that our disappointment with external knowledge would make these restrictions acceptable. This emphasis on morality was an attempt to save something of religion, but religion has a different and broader basis. His hope was not fulfilled, because morality is only a part of internal reality. Can we hope that more can be achieved when we know more of this reality and need not emphasize morality in isolation?

We must nevertheless still be prepared to accept severe limitations in our knowledge of internal reality. But these may appear much more natural once we realize the large scope which, in spite of them, is open to this kind of knowledge. Let us therefore consider next this rather neglected subject.

¹ *Prolegomena*, para. 60.

CHAPTER V

FEELING AS AN ORGAN OF KNOWLEDGE

THE influence of natural science and the habit which goes with it of thinking in a purely rational way has made us suspicious of feeling altogether, for the scientific approach requires, as we have seen, "independence of the observer". The usefulness of rational thought has accustomed us to regard any influence of feeling as dangerous to correct thinking; feeling, so it has come to seem, has to be eliminated before reliable knowledge can be acquired.

Yet, even at first sight, it is obvious that a complete elimination of feeling cannot be desirable. There is at least one important function of feeling which can hardly be denied—that it enables us to possess what, without it, would remain merely abstract thought, lacking the impetus necessary for further developments. There would be, for instance, no research without people taking interest in it, and only a strong interest (which is a feeling) will bring into play sudden intuitions which are so essential for new discoveries and the creation of new theories. Or take statements which we are perhaps willing to consider as true, such as our assertions about morality. So long as they are simply noted without personal participation, they may be interesting, but hardly deserve the name "truth"; it is only when we are struck by them to such an extent that our feelings are aroused, that they have power to influence our outlook, our activities, our lives, that they really become true for us. This participation of feeling, however, means more than merely adding an overtone to the statement; there is a difference of quality between a factual statement we read, say, in an encyclopædia and our own conviction. Neglect of feeling, therefore, must be wrong.

It is through this active part our feelings play in internal reality that the one reality can be distinguished from the other. Thus if, as we have claimed, internal reality represents just as valid an aspect of reality as external reality, we must be able to acquire reliable knowledge with the help of feeling; otherwise our grasp of internal reality would be bound to remain vague and at the mercy of feelings in which we could place no trust. But can feeling really be an organ of knowledge?

Since the word "feeling" is used to describe all manners of states of mind, from physical sensations to the apprehension of the love of God, it seems best to begin by indicating the distinctions which I make to avoid ambiguity.¹

(1) Feeling as human faculty, comparable with "thinking" and "willing", simply denoting ability to feel and thus including all the following.

(2) Occasional feelings which are a reaction to a situation—such as joy, anger, grief, fear, desire, amusement, disgust. In such instances the word does not refer to our general faculty of feeling, but to single experiences of certain distinct feelings; the concept serves to describe special states of mind of single individuals. Here the word "emotion" comes naturally to mind; these feelings I shall therefore call "single emotions".

The feelings usually referred to as moods need not be specially distinguished from single emotions. We can describe a mood as a generalized feeling which may or may not be readily attributed to external circumstances or physical condition. Examples: despair, contentment, anxiety, depression.

(3) Feelings which lead to the acquisition of knowledge—such as love, trust, compassion, faith.² The characteristic of these feelings is that they are adaptive; they can endure through responding to demands of changing circumstances,

¹ As they are unimportant for our purpose, physical sensations such as feelings of hot and cold are not included.

² In so far as these feelings have oppositions, these will be discussed in Chapters VI and VIII.

even though in doing so they are modified in some degree. In the same class are value-judgements because, although they can be elaborated by thinking, they are finally based on feeling. For instance, knowledge of good and evil—if rational elaboration alone is employed—can be quite unreliable; moral rules, as we have seen, may harden into rigid laws which produce cruelty instead of love. To speak of goodness without having experienced it is like a colour-blind person talking about colours; the account is a travesty of the living experience. A true knowledge of goodness is experienced through feeling, and it is this kind of feeling I refer to when I speak of “feeling as an organ of knowledge”.

The essential distinction to be drawn from the meanings mentioned above is that between single emotions and feeling as an organ of knowledge. Both are produced by our general faculty of feeling (in this respect the common name is justified); but their difference is greater than the common name suggests (and so far it is confusing).

Before going further with the discussion of feeling, it is necessary to remind ourselves that any abstract philosophical discussion suffers from the disadvantage that it must treat all experiences as if they were fully conscious, which is by no means the case. This difficulty can be overcome if the reader, instead of viewing these discussions as more or less interesting ideas, will try to translate them into terms of his actual experience. Otherwise this inevitably abstract discussion will be fruitless. This point, mentioned before, is particularly important when we deal with feelings, for in their sphere experience is most direct and we are therefore less distinctly conscious of it than in any other, so that, in order to discuss them, it is necessary to lift them up into consciousness as far as possible. Although I hope to show that the contribution of a full consciousness to experience can be valuable for understanding, I do not want to suggest that the differences between feelings are conscious to start with, nor that feelings can be produced at will.

There is one final preparatory step needed before we

embark upon our discussion proper; it concerns the concept "love". The word itself has such a wide variety of meanings and associations that it is desirable to be clear how they relate to our classification of feelings. There have been attempts to establish at least some fundamental distinctions; the two concepts "love" and "charity" could be of help if only "charity" had not changed its meaning to such an extent. Some writers have resorted to the Greek word "agape", but clearly this word has not taken root. Yet even if there were two adequate words to distinguish love between man and woman from the love of God and of one's neighbour, each word would still have to be used for very many and very different feelings—such as (to give only a few examples) falling in love, love between husband and wife, between parents and children, between friends, or love of God, of mankind, of single persons as "neighbours", of an enemy (not to mention other kinds of love such as that of one's country, of beauty or of one's profession). The poverty of language which this discloses can be seen in much of the vocabulary descriptive of feelings, but this is only one of the difficulties of discussing love, for many of the particular feelings mentioned are a compound of a number of feelings. Falling in love with a person may be so fleeting that it is no more than a single emotion, though it may contain the seeds of a lasting love between man and woman which, in its turn, may be falsified by too great a love of oneself, or may be either supported or weakened by being part of that love which is usually called love of one's neighbour. Erotic love and charity in the original sense of the word may enhance or undermine each other; there are, in fact, more individual variations than any abstract examination could possibly include.

Nevertheless, the basic difference between single emotions and feeling as an organ of knowledge can, to a large extent, help us to understand the working of our feelings and thus clarify even some of those compounds which, at first sight, seem to defy discussion.

It is not difficult to show that single emotions and moods can be dangerous to knowledge. If we are contented or in despair, we are inclined to see everything in the light of these moods; the whole world seems either rosy or full of gloom. It is true that desire or anger may sharpen our awareness; we may discover qualities which we would otherwise have overlooked; but perhaps we also discover virtues or vices which are, in fact, conspicuously absent. The influence of interest can be more positive, but no such feeling ever gives us knowledge directly. In any case, we do not recognize things as such through desire or anger or even interest, but rather have to control the impact of all these emotions.

Feeling as an organ of knowledge, on the other hand, leads directly to objective knowledge of general validity; it discloses principles of action and gives to them, just as to any experience of truth or beauty, a firm basis, all of which could not be done in any other way. Moreover, single emotions which arise on special occasions, such as joy and grief, usually pass away more or less quickly; we have said before that feelings cannot be indefinitely preserved without undergoing change. Yet such a knowledge as that of good and evil, although based on feeling, is by nature constant; once acquired, it will remain with us. It is true that love (or goodness) has to be constantly recreated, since, for human beings, it only exists in the abstract until it is brought to life through its embodiment in the concrete; but no amount of effort nor any combination of circumstances can altogether succeed in obliterating it. Throughout our lives the concept of goodness is susceptible to development in us through experiences of goodness; so too with the concept of love. At first these concepts may be extremely primitive, but if we allow ourselves to be open to the reality of their existence we shall both enlarge and refine our concepts of them.

The difference between the two kinds of feeling can be seen most clearly when both are operative over a considerable period. There are cases when single emotions last, as

they do when we are obsessed by desire or seized by despair. But they do not remain unchanged, for if they do not die away or completely change their character they increase, and if they increase, their natural passing away is constantly counteracted by stronger and stronger emotions. They constantly become more extreme, more one-sided, narrower, and thus more and more dangerous to knowledge. We cannot stop half-way. Now, as always in the sphere of feeling, new experiences are also necessary to keep alive such feelings as that by which we perceive good and evil, but the knowledge itself, even though neglected, does not disappear without them. Conscience, once awakened, remains with us. Although the interpretation we put upon a certain set of circumstances may alter radically even to the extent of appearing as a complete reversal of a previous conception of good and evil, the knowledge of good and evil remains in essence unchanged.

The two kinds of feeling are not even clearly interrelated; either a strong or a weak single emotion may be accompanied by, or evoke, either weak or strong moral feelings. The same applies to any other experience of this nature; experiences of beauty, for instance, may be either kindled by passions or made entirely impossible by them. From whichever point of view we look at it, the contrast remains a striking one.

Nevertheless, the distinction between the two kinds of feeling—single emotions and feelings which give us knowledge—is not fully achieved by classification. It may seem at first sight that some feelings (such as an experience of beauty) give us knowledge, while others (such as rage) are bound to obstruct knowledge coming to us. But feelings are too closely interwoven to allow us to simplify the distinction in this way. If rage is overwhelming, an experience of goodness (encountered unexpectedly in these circumstances) may very well only increase rage. On the other hand, love for another person, if not blinded by passion or possessiveness, will give us knowledge about that person in particular, and of human relationships in general. Yet by becoming aware of the

falsifications to which single emotions often give rise all feelings can be developed in the right direction, and it is only thus that we can clearly discern those feelings which give us knowledge.

The obvious task arising from this is twofold. We must try, on the one hand, to prevent single emotions from distorting our knowledge and, on the other, to strengthen feeling as an organ of knowledge, so that we can recognize the knowledge which springs from it and which, therefore, we are entitled to accept as valid and objective. What this actually means can be probably seen more clearly if we consider for a moment those forms of the relationship between thinking and feeling which are most characteristic at the present time.

Today, thinking is generally identified with the kind which serves the knowledge of external reality, and feeling with the kind we have called single emotions, and the feelings which lead to knowledge are not differentiated from the single emotions. Moreover, the sphere of internal reality, in which they are operative and in which they can alone be developed, is disregarded. We have seen, however, that external thinking on the one hand and many single emotions on the other are mutually contradictory, and therefore we often find that there is a struggle between the two. As in any warfare, three solutions are possible: either the victory of the one side, or a victory of the other, or an uneasy armistice. All these three results can be discerned as the outcome of the struggle between thinking and feeling.

(1) The victory of external thinking. This is the attitude which is most frequently adopted. It hardly needs any further explanation. We trust the external, the practical or scientific approach alone; feeling is regarded as a dangerous intruder, as something unreliable, not capable of rational discussion, as purely "private" or meaningless. Feeling, to be sure, does not disappear, but it is weakened and pushed into the background as far as possible; it is denied any influence upon our lives—apart from the disturbances which

any suppression causes. But even these disturbances we try to heal in a purely rational way. Scientific thinking has probably benefited from this attitude, but the loss is evident, too; feeling, treated in this way, cannot possibly develop further; it becomes weak and unreliable, and a vast province of human experience, and a most important one after all, remains inaccessible to thinking and gradually turns into jungle.

(2) The victory of feeling—or, as it probably could be better called, the subjugation of thinking by feeling. This is very frequent, too, but as it is hardly ever seen in this light, it needs a fuller discussion.

We have said that single emotions can last if they develop into strong passions, but these have to be fed by stronger and stronger experiences of the same kind. This is sometimes described as “nursing” a passion; the emotions which dominate us or which we desire to experience can be made to recur again and again, if, at the same time, thinking is distorted in such a way that it cannot but interpret reality in favour of the emotion. Therefore, thinking is subjugated by a particular feeling, so as to serve it. In any form of fanaticism or obsession thought is no longer determined by the actual experiences, but these experiences are always judged in accordance with a system of thought—frequently extremely complicated—which has been built up under the influence of the fanaticism or obsession in order to support it.

This can be easily seen when we take up once more our example of extreme nationalism.¹ It is never founded upon a true knowledge of the merits and shortcomings of the nation; that nation is the absolute ideal and all thinking about it has merely the task of transforming facts in such a way that they support this presupposition of the ideal which is derived from feeling. The process usually begins with simple embellishments—for the German nationalist “faithfulness” becomes an exclusively German characteristic and for the English nationalist “fair-mindedness” typically

¹ See Chapter II, p. 47.

English—which is really nonsensical, for, if taken literally, a faithless German would be no German and a faithful Englishman would. Obviously once passion is roused, such inconsistent praise is no longer sufficient; the fanatical feeling has to be made proof against disproof. Very elaborate theories are therefore needed—for example, the pseudo-scientific race-theory maintaining the superiority of the “Nordic” race, or the much better founded Marxist materialism, or some forms of idealism—in order to make thoughts and facts agree in such a way that all of them support the feeling which has invaded thinking. A new kind of science, referring to external reality, but determined by feeling, sweeps away all proper thinking.

Any such fanaticism also needs “the enemy”. In this way attention can be directed away from the shortcomings of the system and the many facts which cannot be accommodated in it; the rejection of inconvenient facts and attacks upon “the Jew”, “the Imperialist”, “the Communist”, have to be called in aid and often play a more important part than the beliefs themselves. These attempts to hide the gaps of the system involve distorting the world even further.

More clearly than in the case of a victory of thinking, therefore, the loss is twofold. Thinking, it is true, can be highly developed or rather driven into intellectual extremes, but is prevented from fulfilling its task properly, because it has to support one special feeling at all cost. And feeling, despite its victory, is forced to affirm or reject, so losing the qualities of the object experienced and making any more subtle differentiation within the sphere of feeling impossible. Fanatics are caught in a vicious circle. The dominating feeling has to be made strong, but without a conscious awareness of their dependence on it which could lead to a critical appraisal, so as to hide the distortion of all thought and to make the system appear objective. All other feelings must be made either positive or negative, for only then they are not differentiated enough to produce further thoughts

themselves, but simply uphold the black and white pattern of the system. No obsession, therefore, ever awakens the desire to distinguish between feelings, for such a desire is inimical to fanaticism. Instead, thinking is led to concentrate intensively on the abstract system; kept strictly within the boundaries of the paramount feeling, it cannot but elaborate the black and white pattern further. Yet this development of thinking, however elaborate, remains useless, for it does not influence the dominating feeling, but only transforms external reality in such a way as to remove all obstacles which could diminish its power.

It can now be seen that, even though thinking in external terms is subjugated by feeling, not only is external reality distorted, but feeling itself suffers the loss of authenticity and differentiation. Any proper expression of feeling as thought is dependent on observing the conditions of thinking appropriate to internal reality, thereby having the effect of making our feelings more distinct and varied. Without internal terms of thinking there is no way out, for the systems developed in the manner described deal exclusively with external reality and are thus unable to modify the feeling which generates them.

The same fundamental situation occurs if there is a victory of thinking, for utter concentration on science can be a similar obsession—even if the element of passion is lacking or hidden, thus avoiding gross distortion of external thinking. Feeling may be strong, but cannot be developed; the existence of a different kind of knowledge must not be suspected.

(3) The uneasy armistice. We may recognize external thinking as the only possible one (and thus avoid the subjugation of thinking by feeling) and yet want to preserve our feelings and consider them as the most important part of our experience. In this case feeling is completely separated from thinking, so that the external way of thinking (which seems to be the only one) cannot interfere with our feelings. Everyday life and practical affairs are left to other people

or to a carefully isolated part of the self and concentration centres whenever possible on the sphere of feeling alone.

There is no doubt that feelings can be considerably developed in that way, but not without fundamental defects. Whenever we concentrate on feeling, we retire into a life which is not completely real, and our feelings, even if more differentiated, are bound to show some lack of contact with real life. In one way or another they acquire to some extent the characteristics of sentimentality, which we shall discuss in a moment; being cultivated for their own sake, they cannot give us that compelling certainty which feeling as an organ of knowledge gives. This attitude could probably be best described as æsthetic. It can enable us to appreciate beauty, but not its full significance; in fact, everything with which it deals, even religion (transformed into vague religiosity), becomes an ornament of life instead of being its moving force, carrying with it enjoyment, but no obligation. It is true that this attitude has a limited value, but there always comes a point where the isolation of feeling from thinking results in superficiality. During the nineteenth century the attitude gained ground, and the Romantic poets of the time certainly appear out of touch with reality and one-sided when compared with, say, Shakespeare or Goethe. It is a solution which avoids facing our real situation, and like the others I have instanced does not alter it.

It may be a help in finding the way out of the quandary if we try to see more clearly what is meant when we talk about sentimentality, using this word in a derogatory sense.

Like all feelings sentimentality is difficult to define; but there are usually two elements at work when a feeling is rightly dismissed as "sentimental".¹

(1) We are inclined to accept conventional attitudes, to feel what we know we ought to feel on certain occasions, without fully relating these attitudes to our particular, individual experience or situation. If, for instance, a funeral

¹ Cf. for the following: J. Macmurray, *Freedom in the Modern World*, p. 152, and *Reason and Emotion*, pp. 31 ff.

passes by a group of strangers, one of them may remark, "How sad to die in the spring." Mothers will weep at church doors for brides they have never seen before. A soldier is greeted as a hero though he may have experienced far less danger and hardship than the civilians who receive him. If we see children playing in the street we feel like exclaiming "Oh, how sweet!" even if they are little devils. We consider neither the actual event nor the real person nor our relationship to these nor what we may think about death or children at other times; we simply conform to an accepted pattern of feeling. Our feeling may be entirely genuine—sincerity and sentimentality may or may not contradict each other—but it is not fully due to our own experience.

(2) We try to dwell upon our feelings. In general, our feelings are determined by their objects; we love or hate somebody, we are interested in something; and our attention is focused upon the object and not upon the feeling itself. In a sentimental state of mind, however, we indulge our feelings, are proud of them, or pitying ourselves because of them; we exploit them in order to enjoy them. Even a feeling of melancholy or of being wronged can be enjoyed in a sentimental way. We also try to prolong the feeling beyond the occasion which gave rise to it, so as to remain in the mood we like—or pretend to dislike—for a long time. Observance of conventional feelings, as we have just mentioned, supports this attitude, for it loosens the relationship between the feeling and its actual object; the object has to be pushed into the background so as to allow us to emphasize the feeling itself. The result, however, is that the feeling is bound to become weak and sterile; weak because we must not permit any experience to become strong enough to control the feeling, and sterile because, if we want to enjoy the feelings we know, we cannot permit our experiences to develop them further.

The pitfalls of sentimentality suggest by implication the lines upon which feeling can be developed in a right direction:

(1) We must learn to feel in terms of the object. Feelings,

after all, are not so entirely irrational as they are often supposed to be; there are right and wrong feelings. If somebody is terribly afraid of, say, a mouse, we shall tell him that he is wrong, and he is wrong. But he would be wrong, too, if he were not afraid of a viper. This is a simple example, but the range of correct feelings—correct in that they are based on an understanding of the nature of the object—can be considerably extended. Poets of all ages show how far this can be done. Only thus can we fully understand what we experience through our senses. Human relationships, moreover, would be poor indeed if we could never rely on an intuitive understanding of the other person, and the basis of intuition is feeling. The difference between thinking which disregards feeling and thinking based on feeling lies in the attention we are able to pay to details. When we try to grasp things by thinking alone and exclude feeling, individual characteristics appear as more or less external; any attempt to penetrate underneath the surface leads away from them into more abstract spheres. With the help of feeling we can achieve a fuller understanding by experiencing these individual characteristics as such, by concentrating on them and on as many of them as possible. Remember our example of the oak table and the little crooked cherry tree: it is only when things become valuable to us that we notice and value each single detail. For the psychologist, peculiarities of a person are signposts, pointing to general and abstract processes; with the beloved person, these same peculiarities give life to our understanding of the other person and contribute to our relationship. It is true that, to become clearly conscious, feeling has to be translated into thought, but it then produces that different kind of thinking which gives access to internal reality.

This, however, has to be learned, for feelings can be much more sweeping than even very abstract thinking. Sentimental moods are similar to abstract generalizations, for very different occasions can evoke the same kind of feeling, and when we are obsessed by passion everything that happens

can serve to increase it and we are apt to overlook the most obvious facts. Thinking, as we have seen, can be entirely subjugated by fanaticism. Our task, therefore, is to keep feeling close to the object and never to allow either thinking or feeling to run away with us. We should never lose sight of the object so that it may make its proper impact upon our feeling.

(2) We must not dwell upon our feelings, but try to understand what they tell us. We can develop feelings in different directions; we can either use the object—as in sentimentality—as the occasion for indulging our feelings and focus our attention on the feeling so produced, on our nerve-reactions and our state of mind; or our attention can be absorbed by the object and by our experience of it. “When we are listening to the playing of a violin”, for instance, “these sounds we may be aware of as pleasing, but, when we are rapt in the music, we cease to be conscious of the pleasure of the sounds, and are conscious of the music only as a continuous melodious meaning.”¹ The same applies, to give another example, to what is usually called “romantic love”; this means that we are in love, not with a person, but with love itself. It is a vague emotion which we try to awake by finding some object for it; as it is only our own feeling which matters, it can be attached now to this, now to that person; the person is not really important because he is seen in the light of our desire and adorned with certain pre-conceived qualities, in order to increase either the pleasure or the pain (it is frequently unhappy love) which we want or happen to feel. Obviously, such a feeling will not give us any knowledge; whereas being in love with a person may.

These two points could be probably summarized by saying that we should try to give to pleasure and pain less attention than to other differences between the feelings which objects cause. (It is true that feelings are not very often manageable, but it will become easier through consistent effort.) Pleasure and pain can be strong emotions by themselves, and it is not suggested that if we receive a wound we should neglect it.

¹ J. Oman, *The Natural and the Supernatural*, pp. 174-5.

But pleasure and pain also accompany all our feelings and it is this secondary role which is meant here. There is no feeling—be it joy or sorrow, love or hate, exuberance or despair—which is not either pleasurable or painful or a mixture of the two. But these accompanying feelings of pleasure and pain do not tell us anything about the nature of the particular feeling with which they occur; a sudden, overwhelming feeling of happiness may be just as painful as a bad shock, and melancholy or sadness can be pleasing.

“Ay, in the very Temple of Delight

Veil'd Melancholy has her sovran shrine.”¹

We are naturally inclined to increase our pleasure and reduce our pain; if we give way and invariably try to achieve pleasure—which makes us particularly sensitive to pain—the predominance of these two poles will obscure other differences. It is the other distinctions between feelings, however, which make us aware of the distinctive nature of our experiences.

All we have said so far refers to the single emotions which are produced by the occasion. To develop them in the way described will help to bring to the fore that feeling which is an organ of knowledge, because it will combat the main danger in the relationship between thinking and feeling—the subjugation of thinking by single emotions. For, if we try to feel in terms of the object, the many objects we are bound to experience will prevent us from falling under the spell of any one of them; and as we shall in this way pay more attention to the object than to the feeling itself, no such single emotion will grow all-powerful. Instead, our capacity to feel increases, our sensitivity grows, we develop a great wealth of many different feelings; and this leaves room for, and throws into relief, that other kind of feeling which is an organ of knowledge. Or, in other words, feeling no longer endangers, but supports a full life. As our attention is directed towards the object, moreover, we shall easily

¹Keats, *Ode on Melancholy*.

recognize the particular nature of, for instance, an experience of a value. In fact, the single emotions are no longer hostile or indifferent to knowledge, but conducive to it, so that they no longer bar, but clear the way for feeling to operate as an organ of knowledge.

The wealth of different single emotions which naturally arise—and which therefore can be developed instead of being disregarded—is very great indeed, for whatever interests us, appeals to us, or displeases us, is bound to awaken our emotion. We have to remember the simplifications which the poverty of our language dictates in this sphere; the names we give to these emotions, such as “interest”, “joy”, “sorrow”, “love”, “hatred”, fall very short of the real wealth we actually experience. Each of the many emotions we generally call joy, for instance, can be different, their difference being determined by the different objects or events to which they refer as well as by our state of mind. Joy is the word we have, but the joy may be due to looking at a rose, to meeting a friend, or to a success in our profession, or to a good deed, and the actual feeling will be different in each case. Even the emotions of joy due to looking at a rose, or a sunset, or a work of art, are considerably different, and each of these emotions will vary at different times. If, therefore, we do not dwell sentimentally upon all our joys as if there were no diversity, but remain open to the special impact of the particular occasion, even this single concept covers of itself a great wealth of different single emotions.

It is this wealth which matters, because it leads to the interaction between thinking and feeling. As there is hardly any impression or experience which is not connected with feeling, these different emotions accompany our thought, influence it and are, in their turn, influenced by thinking. This interaction between thinking and feeling is natural, for every feeling, so long as it is not distorted, tries to force its way into consciousness; if we feel, feeling directs our attention, and we usually want to know what makes us feel as we

do. But, although this interaction is natural, it can hardly be satisfactory unless, as we have seen, feeling is understood with the help of external objects and events, and only by thinking about them, therefore, are we able to become clearly conscious of our feelings.

The importance of the interaction is that through it we relate ourselves more surely to the world—to internal and external reality. The interaction, however, can only become fully fruitful—that is, activate feeling as an organ of knowledge—if internal thinking is employed. External thinking and feeling can influence each other in many ways. On the one hand, interest or enjoyment can stimulate or direct external thought; intuitions may give us sudden knowledge of external reality, both in small matters of everyday life and in dealing with scientific problems; on the other hand, if we want to feel in terms of the object, we must have external knowledge of it and this knowledge will influence our feelings and, if mistakes are discovered, completely change it. But in all such cases feeling and thinking influence each other, so to speak, as separate entities. External knowledge, whether stimulated by feeling or serving it, must be developed in its own way; the knowledge which feeling gives cannot be used as part of the process; values must not be allowed to disturb this kind of thinking. It is only when we begin to think in terms of values that feeling is translated into that kind of thought which really embodies it, which can develop it further and make us aware of internal reality. Personal participation, which is merely a stimulus so long as we are concerned with external thinking, becomes creative in internal thinking. We are forced to establish, with the help of feeling, the relationship between external reality and ourselves in such a way that external reality embodies and discloses internal reality. As soon as such a relationship has been established, every increase in knowledge of external reality must also develop our feelings. Thus, and only thus, the estrangement and struggle between thinking and feeling can be overcome.

The clearest example of internal thinking, as we have said, is the application of value-judgements. To understand feeling as an organ of knowledge, therefore, we have to discuss next the principles of evaluation. But, first, a final word about the difference between the single emotions and feeling as an organ of knowledge is necessary.

The contrast between the two from which we started should not be forgotten, even if their difference has been considerably reduced by the discipline suggested, one result of which was to make it possible for single emotions to be conducive to knowledge. The contrast remains important because feeling as an organ of knowledge only works properly if we develop it, not in the direction of the single emotions, but away from them—just as these had to be developed, not towards, but away from pleasure and pain. It is true that beauty and goodness usually produce joy, but if we insist that they always should and that they should do nothing but that, we all too easily overlook that they have other aspects as well; both can be awe-inspiring and even frightening, and they do demand exertions which are frequently shunned because they are painful or even distressing; our expectation of joy has become too much associated with pleasure. We shall see later, when discussing the traditional absolute values, that beauty has lost much of its meaning because we overlook the terror which can be part of it, as for instance in Shakespeare's tragedies. And is not that goodness, which can really transform the world (as for example, Christ's still shocking ethical demands helped to do), seriously endangered if we expect good people to be, first of all, nice people who never disturb us because they are always conciliatory? It is a great help if the single emotions are transformed in such a way that they themselves impart knowledge, but the fundamental knowledge which feeling as an organ of knowledge can give us must still be distinguished from them.

This distinction, too, will reappear and be clarified when we now discuss the nature of values.

CHAPTER VI

THE PRINCIPLES OF EVALUATION

Is it an indication of the materialism of our age that it is chiefly in the field of economics that the term "value" is discussed? In the material sphere we are alert and sufficiently thorough to discuss all the elements that matter; outside it, especially in philosophy, all too often the choice is determined by prejudice. Values, as we have seen, must be excluded when dealing with external reality, and therefore the scientist is right when he refrains from considering them within the framework of natural science. But his attitude has influenced most of us—scientists as well as non-scientists—to such an extent that we also neglect and even despise any discussion of values which are more obviously personal than those of, say, economics. Yet we cannot help talking about them, for there is no doubt that we incessantly make value-judgements and that we could not live without doing so; every day we have to decide what is more or less useful, more or less pleasant, better or worse, right or wrong. These judgements cannot be avoided, but we frequently make them without paying much attention to the values we employ; we express our feelings and judge arbitrarily and often emphatically, on the spur of the moment, without being aware of what should be done in any act of evaluation. The results are not likely to be satisfactory. Although value-judgements are not the product of reason, their validity depends upon a reasoned approach; in other words, we are bound to use reason in order that the basis of a judgement may be sound.

As in the previous chapters, before embarking on our subject, it will be helpful to consider the meaning of the terms which we employ.

The neglect of values has gone so far that the very word can hardly be used by itself, without further qualifications or outside certain idiomatic phrases. It is true that the concept of value, being one of the basic concepts to which we have referred before, cannot be directly defined, but this does not preclude its proper discussion and usage, for there are quite a number of elements which can be clearly discerned and which are necessarily present in a value of any kind. Some of them we have mentioned already.

Subjective and Objective Elements in Evaluation

A value, be it usefulness or goodness or beauty, does not exist as a thing somewhere between heaven and earth; it needs our personal participation to come into being. Something must become valuable to us (or the opposite), otherwise we experience facts and not values. A thing is not useful of itself, but for a purpose; saving a life or taking a life are for us simply events unless we personally recognize that the one deed is good and the other evil. Similarly, if such an everyday event as a sunset is to be called beautiful, it must be seen as such. Therefore, values are not expressed by factual statements, but by judgements; neither the thing nor the deed nor the sunset itself is a value; our personal participation and the conclusions derived from it are of the essence.

A frequent misunderstanding can be eliminated at the outset. As values do not exist independently in the same way as things, they must be embodied to be experienced and the embodiment judged for value in order to be recognized as such; no embodiment, therefore, whether an object or a conviction or even the highest form of feeling, *is* a value. It is of value or is valuable (useful, good, beautiful) and the values (usefulness, goodness, beauty) are the canons of judgement.

Nevertheless, although personal participation is required to bring values into being from the abstract, they refer to something which is objective. The fact that our judgements can be mistaken makes this plain; a thing may be quite

useless, even though we think it useful; it is the saving of a life which is good and not our judgement of the act; and beauty does not lie entirely in the eye of the beholder. We all know that our value-judgements about things, about human behaviour, even about works of art, can be right or wrong, which shows that they possess a basis which is independent of us. It is frequently claimed that values are purely subjective, that is, different for each individual, "a matter of taste", and that they therefore cannot be discussed. This is true of a few values which we shall distinguish later, as, for example, when we say that something is agreeable or pretty; but it certainly means considerably under-rating human intelligence if this attitude is extended to all values, particularly to moral ones. To call a murder evil is not a matter of taste.

It is true that the combination of subjective and objective elements makes it difficult to discuss values. In fact, this double dependence ought not to surprise us, for it is visible on all levels. Any one of us will pay a price for a commodity only if it appears sufficiently valuable for him to spend that amount of money; but the price has also to be related to the costs of production, otherwise there would be economic chaos. Even here, however, this double dependence makes it difficult enough to develop reliable economic theories, and it is still more difficult to distinguish between the personal and the objective part of a value-judgement once we leave the purely material sphere. How can we ever be sure that, what we consider as good or beautiful, is really so? Has the word "really" any exact meaning?

As, in the world of values, our personal participation is essential, it follows that there must always be room for it, a space to be filled—an absence of finality, leaving room for our own decision. Nevertheless, the objective basis of these judgements is indicated by the existence of principles of general validity in internal reality—of a validity which, as we have seen,¹ is different from that appropriate to external

¹ See Chapter II, pp. 44-45.

reality. We have said that a single person, such as Socrates, may be right against a majority. That he was gradually recognized as being right seems to indicate that there is something in reality waiting for disclosure on our approach, something which is real and can yet be disclosed only by our personal participation. We must be touching upon something real, otherwise no such judgement could ever become generally valid; we cannot be simply following our private impulses. Therefore, we can also avoid being misled by them.

Recognition of the dependence of values on both personal and objective elements implies that we should endeavour to see both as clearly as possible. If we praise, for instance, a television set as a miracle of technical accomplishment, we should not forget to judge it also from a personal point of view—whether it is really of benefit to us, or to mankind in general, and if so, why. Or, to give a more important example—the pursuit of scientific knowledge seems to be the only endeavour in our age which is completely exempt from any moral evaluation; while practically everything else is judged morally, further development of science is accepted as valuable in itself regardless of the use that may be made of it. It seems, for instance, not only impossible, but also unjustifiable for us to stop atomic research, even if its greatest achievement is to produce a means of mass-destruction, and even if the experiments themselves seem to menace human life. Are we not perhaps in danger of allowing science to displace ethical thinking if we do not even discuss the morality of pursuing knowledge irrespective of the particular purpose, use, or consequences?

On the personal side, our general attitude to science is based on the assumption that scientific research is the expression of a devoted unselfish search for truth. Pascal—who himself was a great mathematician and physicist—became suspicious of his own endeavours because he felt them to be, not “search for truth”, but “lust for knowledge”. Search for truth, he thought, should take as its field

the whole of existence—man and the universe—while lust for knowledge serves to satisfy an irresponsible curiosity; it can even become a kind of hubris by bidding for the mastery of creation. If scientific research is debased to a mere lust for knowledge, it only disturbs the search for truth, and obviously the lust for knowledge cannot represent—as does the search for truth—an ultimate value in itself, though it may prove scientifically useful. Not all our scientists appear to be aware of this possible difference of approach. But is even a genuine desire to increase knowledge sufficient to justify the highest possible value-judgement—namely that this kind of activity, in contrast to all others, must be exempt from all human considerations?

The answer to this question depends also, of course, on the objective elements which are needed for any value-judgement—on how far a one-sided scientific research can be accepted as a search for truth. We shall discuss the concept “truth” later, but as we have already seen it is wrong to identify the advance of scientific knowledge with general human progress, and it seems obvious that truth cannot be served properly if the whole human sphere is completely disregarded. Moreover, if the scientists say (as we frequently hear them saying) that they want “truth and nothing but truth, whatever the consequences”, they obviously consider truth as an absolute value, for only these values are independent of any other qualification. Can an absolute value be made real in a sphere where man is necessarily excluded from participation?

I do not want to suggest that the continuation of scientific research is not inevitable or within its limits very useful. What I want to say is that our sensitivity has been blurred to such an extent that we make fundamental value-judgements without considering what is implied. (In less important, but by no means unimportant matters, our value-judgements are far too frequently hardly more than the equivalent of thoughtless exclamations like “how wonderful” or “how awful!” We state our opinion and leave it at that.) Yet it

is this sensitivity which is essential because, as I said before,¹ our situation is particularly endangered by the lack of balance between our scientific achievements, advancing at an ever increasing speed, and our slow moral development. It is clearly insufficient if our nuclear physicists combine to warn us of the danger of atomic warfare and if, apart from that, most of them continue their research in the light of the wrong conviction about truth which we have quoted. The further step which Pascal took—to see the real relationship between the subjective and the objective elements of our value-judgements—is urgently required; it led Pascal, long before his conversion, to pay more attention to man. Nobody can prophesy what may happen then; we shall probably remain unable to follow the example of Leonardo da Vinci who destroyed his plans of a submarine and a flame thrower, because they would do too great harm to mankind, although he was in charge of the defence of his city. It may be that even this is only a legend, and certainly no single scientist can wield such an influence today. But it needs no power of prophecy to see that the balance lacking at the moment can only be established with the help of a proper evaluation of everything we do, including scientific research and marvellous technical achievement.

In other words: before we consider scientific research as a wholly valuable search for truth, we must know whether it is really a search for truth and whether science can lead to truth. The same applies to the other extreme—overrating internal thinking; we cannot say, as we have seen, that the universe is good, for we have no experience of the whole universe, and what we know of goodness applies to man and not to the universe.

We can now sum up our conclusions about the subjective and objective characteristics of values. It is wrong to see the concept “subjective” in the light of its derogatory meaning which we have mentioned; there is a difference of method between the objective and subjective approach, but

¹ See Chapter II, p. 39.

both methods properly used, can lead to valid results; the subjective method, however, has suffered because it has not been correctly understood, and is thus more in need of attention. In the realm of values there is neither pure objectivity, for there has to be room for us to exercise our personal participation; nor pure subjectivity, for we have to know what we are talking about. Therefore, the subjective method is only properly used if we pay full attention to both the objective and subjective elements in any evaluation; if we do, our sensitivity in this respect and the correctness of those judgements which are based on it can be considerably increased.

Scales of Values

There is another characteristic of all values which, if properly used, can be most helpful. Whenever we apply values, we can and do arrange everything—objects and events, actions and experiences, and even the values themselves—in scales, according to the degree by which every single thing contributes to our realization of a particular value. They actually tend to take their place in such a scale more or less automatically.

Any value can serve to build up such a scale. Different commodities have a different price and different qualities; we obviously must be aware of both scales and compare them carefully if we want to spend our money sensibly. There are scientifically developed scales setting out the different qualities of metals, to enable us to choose exactly the right one for various purposes. In the moral sphere, we are rarely confronted with a clear-cut choice between good and evil, but frequently with that between better and worse; there are conflicting loyalties, there is “the lesser evil”; obviously our decisions have to be based on our knowledge of the different degrees of value, and it is essential that this knowledge should be as clear and correct as possible.

To make it so, we have also to be aware of the fact that

many scales of values are—and should be—contradictory. In this respect there is once more a great difference between external and internal reality. If two scientific theories contradict each other, a serious problem arises, as can be seen from the great exertions made by some physicists to resolve the contradiction between the general theory of relativity and the quantum theory; Einstein devoted the last decades of his life to this attempt. In the sphere of values, contradictions are the natural rule and no problem arises.

This can be seen even if we are dealing with the same kind of objects from a very similar point of view. When, after the introduction of electric light, the value of candles for the purpose of lighting is reduced, their price may nevertheless go up, because less candles are produced than before. The same things can always take inversely opposite places in different scales of values. Air is indispensable for our lives, bread most important, and toys and jewellery superfluous; but air costs nothing, bread is cheap, and the most superfluous things can be most expensive. Actions which are very helpful for progress in our career may have very little or no moral value. These contradictions should be kept alive, for any attempt to unify the scales by basing them on a common denominator falsifies our judgement. It is just as wrong to judge harmless pleasures in the light of a rigid morality as it is to expect that moral behaviour should be useful for our material welfare and rewarded by success in our profession and by riches. We must make up our minds and decide what we want.

In fact, at least one attempt at such a unification—everything being valued in terms of money, thus making money an all-inclusive scale—has been largely successful in our age; but this only shows what havoc it works. It is quite obvious that a scale of this nature is one-sided and limited. We need not even think of truth, goodness and beauty which naturally must be left outside; usefulness for a special purpose, as our examples of electricity and candles, of air

and bread show, must still be decided in other terms. Once, however, this scale takes hold of a man to such an extent that he judges everything, first of all, by the amount of money it brings, he will succumb to that kind of materialism which we have seen at work; he will see the means only and forget the end, and thus destroy the value of the means because it no longer serves any valuable end. Wanting and making more and more money most easily destroys the ability to enjoy even those minor pleasures which it was originally meant to provide. Not to mention the destruction of the higher values which has advanced far, thanks to this kind of unification of contradictory scales of values.

If, on the contrary, we pay attention to the many contradictory scales of values, the growth of our sensitivity which is so essential for a sound evaluation can be further increased. Even in the sphere of objects, these scales cover external reality with a net of manifold relationships which make it accessible to a quite different approach; by including the same objects in many different scales of values, these objects are made amenable, so to speak, to a different kind of treatment. The resistance of external reality is gradually broken down; the facts are prepared in such a way that we can use them within the context of internal thinking, and change them into that form which embodies values. This corresponds to the development of the greater wealth of different feelings, which we have mentioned as opening the way for feeling to be used as an organ of knowledge. The greater the number of different values we appreciate in that way, the more the single details of any object, which are so essential for feeling, will become clear, and they, in their turn, will make clear why we evaluate things as we do and how we should evaluate them. The net covering external reality will become increasingly reticulated so that less and less can escape through its meshes, until external reality is conducive to clear feeling and to the knowledge of values.

What this means can probably be best seen in the works

of those men who react most sensitively to external reality—in paintings. If van Gogh, for instance, paints a chair or a pair of boots, he appreciates every single detail of shape, material, colour, light, space, environment; he follows every single line and shade with full loving understanding; and thus the net of different scales of values becomes so dense that the complete representation of external reality gives, at the same time, full expression to internal reality. In such a case, this can no longer be translated into words, but van Gogh's letters show how much he cared for the development of the different scales of values; and the development of our wealth of feeling and the sharpening of our sense of value make themselves felt if we experience such a picture fully—that is, when we do not simply exclaim "how charming!" (which these pictures are not), but allow any work of art to make its full impact upon us.

The many contradictory scales are just as important when we approach internal reality more directly. To do a good deed, for instance, the doer has to pay attention to practical considerations; the means have to be efficient to serve the end well; but they must also be judged from the point of view of goodness—can the end justify the means, can bad means serve good ends? Where there is time for consideration before committing ourselves to a course of action, we have to pay attention to our personal involvement, to our motives, and to the general code of morality, in the light of both what is generally accepted and what we, in our conscience, believe to be an absolute demand. Conflicting loyalties may arise, such as between the duty towards oneself (say, in the pursuit of an ideal) and towards one's family (say, to fulfil material needs); these may be resolved by love, but even then one has to decide between Mary and Martha—whether love serves better through attending to material welfare or higher spiritual values—that is, by seeing the different scales of values. Or the absolute demand (Thou shalt not kill) may conflict with the compelling demand to defend one's country or personal

and political freedom. There is no guarantee that this problem can be solved once for all and for everybody, but obviously no moral decision is really valid if we do not see all the values involved clearly. If I want to help somebody, I have to take into account what is most valuable to him and try to distinguish, within his own evaluation, his true needs from his wrong wishes, otherwise I shall act without love, which makes help humiliating and thus hardly true help. The sharpening of our sensitivity through recognizing as many scales as possible remains essential.

As all these examples show, the development of evaluation must not be seen in the light of external knowledge which leads to definite results by generalization and simplification. On the contrary, we have to appreciate more and more subtleties and differentiations, and there are no clear-cut results, for these always depend, ultimately, on our judgment and decision. But this increasing wealth of differences, though the opposite of simplification, does not make for bewildering complexity, for, in spite of all these contradictions, there is also a hierarchy of values which we must not overlook.

Whenever values conflict they reveal their relative importance; we should know, for instance, the relationship between our actual needs and pleasure; if we prefer pleasure to too great an extent, it will escape us. Or again, circumstances can arise in which it is impossible to act with love and yet be obliging. In fact, it is not too much to say that the order of values we accept influences our lives more than anything else. This order mainly depends on our choice of dominant values; whether, for example, we consider money or outward success, good human relationships or a religious way of life to be of the highest value. It is true that many people avoid such a decision by dividing life into compartments and by living by different standards in each. But this is hardly a satisfactory solution, for, though many may prosper by so doing, there is always the danger that their lives will be gradually warped and even degraded by

the strength of the unrelated lower scale of values, with the consequence that human relationships—and so in the end the individual too—will suffer. Again, this hierarchy should not become a rigid and all-embracing system, as all bureaucratic hierarchies eventually prove; in distinguishing the different scales we must take as large a view as possible and not allow a pre-occupation with petty values to obscure the issues that we know to be more important for us.

Three Different Kinds of Values

The valuation of values begins with the distinctions that can be made between three different kinds of values; when these are defined they disclose the basis of an order of values.

(1) *Purely subjective values.* In one form or other, they refer to qualities which make things agreeable or disagreeable, and increase the undifferentiated kind of pleasure and pain which we have mentioned. It is these which are entirely dependent on the individual taste and cannot, therefore, be disputed. The well-known example “I like sugar in my tea” is a good instance of such an indisputable value-judgement, but it is valid solely in this sphere. Subjective values correspond to the undeveloped single emotions and like these they do not directly contribute to knowledge—that is, in this case, to evaluation. Any proper evaluation presupposes a certain detachment from subjective values, as, similarly, single emotions serve us better when developed in a direction which is not concentrated on pleasure and pain. But they should not be disregarded, otherwise they falsify all the other values, because they are active in every valuation.

Once a sufficient degree of detachment is reached, so that subjective values can become articulate and be compared with the individual reactions of others, then—just as the single emotions could be made conducive to knowledge—they can prepare the way for the other values and considerably enrich them. Good taste—in essence inexplicable, but capable of development—can lead to a fuller knowledge

and appreciation of beauty; and likes and dislikes, if we acquire some detachment, can give to our moral experiences greater objectivity, as when, for instance, we dislike punishment and yet feel compelled to punish.

(2) *Relative values.* They are called relative because they are determined by a purpose and state how well a means serves an end. The clearest example, therefore, is practical usefulness. But they are by no means restricted to this sphere. Any aim we want to achieve—such as to enjoy ourselves or to entertain others, to educate ourselves or others, to help somebody, to live a good married life, to serve the community—needs means which we have to judge by their fitness to serve the aim. The same happens when we have no intentional aim, but experience feelings which we like or shun, such as joy and sorrow, love and hate; if we consider the cause of any such occasional emotion we evaluate it in the relation to the result. In this sense it is a relative value. For instance, if, on an excursion into the country, a child takes a particular delight in the behaviour of birds, in evaluating the cause of his joy we can see in it a means of education. Relative values show most clearly how indispensable evaluation is; for whatever I do or experience or feel leads me to judge, with the help of relative values, either the means which I have to apply to attain a chosen end or the cause of a feeling which I can discern. This is just as inevitable as the development of science out of practical needs.

It is here, however, that one could doubt that there is such a fundamental difference between the scientific approach and evaluation. We have mentioned scientifically developed scales of the values of different metals; and it seems—to give another example from biology—that certain organs have developed to serve certain purposes, even though no conscious value-judgement could occur. In fact, this apparent similarity helps to reveal the essential difference. While the relative hardness of any metal can be scientifically ascertained, the choice of a metal depends on

the purpose for which it is required, and the purpose is not determined by whether the metal stands high or low on the scale. A scientific scale of values can be employed to achieve a variety of purposes, but the purposes are human choices made independently of the scale. In biology, the greatest efforts have been made to get away from all terms referring to purpose, for it is necessary to exclude it in order to make biology an exact science. No such efforts are even thinkable in the sphere of the relative values. Many of these, determined by practical purposes (the choice of a tool, for instance), refer only to external reality, but even then the difference between external and internal thinking is not diminished, for any purpose is determined by personal choice.

(3) *The absolute values.* These are, according to tradition, truth, goodness and beauty. They are called absolute or intrinsic, because they are valuable in themselves; their value does not depend on any other value, purpose or aim. These values are also the only ones of which it is claimed that they are experienced with absolute certainty. They will occupy us in the next chapter; but it will be appropriate, at this point, to dispose of a common misconception which arises as a result of reading into the name "absolute values" a wrong implication.

We have said that values are abstract until they are embodied; this applies to the absolute values just as to all the others—truth becomes real as a result of knowledge or experience or faith, goodness real in a good man or good deed, and beauty in a beautiful object or person or work of art. But we have also said that it is not the object, however valuable, which is the value; and therefore no embodiment of truth, goodness or beauty, even if it seems perfect, should be identified with the absolute value itself. In this respect the name "absolute value" may be ambiguous, but the meaning that it should have is that, in any experience of such an embodiment, something shines through it which becomes so self-evidently real by its impact that it would

be nonsensical to deny it; its actuality is beyond dispute. We meet, in the embodiment, something which we cannot but accept as underived and ultimate, as fully convincing and beyond doubt—that is, as absolute. The embodiment provides the occasion of this experience, but the absolute value (like any other value), is made real by our personal participation. It is, therefore, no argument against the absoluteness of these values that there are discrepancies and fluctuations—throughout the ages and in different parts of the world—in judging the embodiments of truth and goodness and particularly of beauty. The question whether or not these values can be considered as absolute has to be decided on other grounds.

We shall call the particular experience which characterizes the absolute values “a meeting with the absolute”. By now it will have become clear how the adjective “absolute” has been used—it indicates, purely factually, that something has to be recognized as ultimate and underived, and that we must accept it as such, without being able to explain it. The noun “the absolute” goes one step further; but its meaning is still limited to the statement that, in all such experiences as those of absolute values, something more comprehensive is felt which embodies absoluteness, but which can be neither defined nor grasped more directly nor reproduced by more definite concepts. We are perhaps inclined to think of it as some entity or force or principle, but we should remain aware of the fact that all these words, though abstract, go too far because they are, in a sense, objects. The word “the absolute” ought to be seen as as neutral and undefined as it is; it emphasizes the boundaries of our knowledge. But it should not be avoided, because it is needed to give some idea of what we actually experience in any such individual “meeting with the absolute” through the absolute values. If we leave it out we fail to do justice to what we really feel.

The most important point arising from the distinction between the three different kinds of values is the need to

be clearly aware of the relative values. Purely subjective values cannot be disputed; absolute values cannot be defined; the relative values are the only ones which can be defined—namely, by their purpose. Therefore, we should insist that they really are defined. It is lack of definition of the relative values that most frequently leads to the confusion which tends to discredit the whole realm of values.

There is, for instance, the value of courage. It is clearly a relative value, for courage—although the condition of a great many valuable endeavours—can serve good or bad ends, and it is only good if it serves a good purpose; otherwise it is foolish or criminal. To mistake courage for an absolute ideal, however, leads to the frequent admiration of the great conqueror or the great criminal; the mistake permits us to overlook the senselessness of the deed, the ruthlessness, the killing. We isolate a single aspect, thus distorting reality, and dwell on it in a sentimental way, thus distorting feeling. And, more serious, this wrong interpretation of the ideal provides even the worst kind of adventurer with those who will follow him for his daring alone. The relative value, undefined because it has been endowed with absolute claims, is developed wrongly in the direction of a purely subjective value, for, to appear absolute, it must not be defined. A valuable concept is made to serve corruption and destruction.

Something similar applies to duty. We are certainly often too indifferent or lazy to do what we ought to do and need the pressure of duty which, therefore, can be of positive value. But it is a relative value; it is only of value if we do something contributing to a good purpose and not if we serve evil. If it is accepted as of absolute value, however, without further definition, it must denote obedience to any law or authority or command, so that even torturing and killing of hapless prisoners in a concentration camp becomes a sacred duty. Once more a very positive ideal is deprived of its value and utterly distorted.

In fact, there is hardly anything more dangerous than to mistake a relative for an absolute value, for this is at the root of any subjugation of thinking by feeling, of any fanaticism. Fanatical nationalists, for instance, consider their nation as an absolute value and disregard the fact that it is only a small part of mankind and therefore relative to the whole. Making the same kind of basic error, fanatical communists regard their materialistic ideal of happiness as absolute, although happiness is obviously dependent on the nature of man; thus they despise the happiness of the single individual and become ruthless, regarding each of their single and limited demands as absolute, to be imposed by absolute dictatorship. In both cases—and this is characteristic of all mistaken absolutes—the respect for the value of the single individual is abolished. This error is dangerous even when fanaticism is lacking; to evaluate science properly has become the more difficult because it is identified with the absolute value of truth, instead of being seen as necessarily limited; and this, too, leads to a disregard of man.

If, on the contrary, we make clear distinctions between the kinds of values, we shall also see—whether we like it or not or whether we are conscious of it—that we are driven towards the application of absolute values. We may try to keep our feet firmly on the earth and want everything to be of advantage to us; but what is to our real advantage? To be selfish and show it unashamedly, or to pretend at least to follow some moral code and to love our neighbour, or to love him genuinely and to obey our conscience? We simply want to be happy. But what is happiness, what kind of happiness do we want? To be able to follow every whim, to have enough money to fulfil every wish which happens to occur to us? But if we do this, we shall discover that some of our wishes lead us astray and some of our actions will appear vile to us; we need some further standards. Moreover, we want friends, and happy family life. This needs at least mutual trust, and trust between people is hardly possible without the conviction that others try to

act according to the same standards as ourselves; for by what else can we measure their firmness or frailty? Trust will grow if they accept these standards unconditionally so that we have some indication of what kind of action or reaction we may expect in any circumstances. Unless our thinking is subjugated by fanaticism or takes another equally wrong turn, absolute values will gradually make themselves felt. We may remain selfish without noticing it, but others will notice it and we shall notice it in others, and it will be some conception of goodness that determines such judgements. Even mere usefulness easily leads to the question "What is really worth doing?" (that is, "What is really good?") when the choice is not first one of means for a particular end, but between different ends, as, for instance, when we have to choose between different kinds of careers before we can choose between types of education. It is true that all these choices will not be as clear-cut as they have to be in our abstract investigation, but the essential effect, that of our being driven towards the absolute values, will nevertheless be present. We have seen before that in the same way the purely subjective values, when further developed, point towards the absolute values.

The recognition that any evaluation leads in this direction will make the absolute values the summit of our hierarchy of values—that is, the aim of our aspirations. This further supports and strengthens the reliability of our individual evaluations, because these values are manifested in that feeling which is an organ of knowledge. They prevent us from going astray mainly for two reasons.

(1) A true appreciation of the absolute values makes any disregard or contempt of man impossible. When a relative value is mistaken for an absolute value, the tendency is to concentrate on external facts, on the nation, on measurable material welfare, on scientific discoveries and technical achievements. Under these circumstances our participation in such a mistaken value-judgement—and thus the participator, man himself—is forgotten. Absolute values,

however, are valuable in themselves, and as they are not dependent on anything outside themselves, the only basis upon which they become real for us is through our personal participation; therefore this participation and with it the value of man cannot so easily be neglected.

(2) Nevertheless, in spite of this emphasis on our personal participation, the objective element in any evaluation is seen most clearly when absolute values are applied. There is, in these values, something real that pierces our awareness and does not depend on our choice (as does the purpose of relative values); we cannot but accept it as independent of ourselves—and for this reason are forced to see it as something objective. Again, this does not mean that the absolute values represent predetermined results nor that the *lack of finality*, needed to allow us to make judgments and decisions, is abolished. This is safeguarded by the fact which we have mentioned before—that these values cannot be defined and that to talk about them without having experienced them results in their misrepresentation. But the objective element in absolute values does mean that they can be discussed and that—given the experience of them—much more than is usually admitted can be said about them; and as all evaluation leads in their direction, the better understanding of them which results must support any act of evaluation.

The discussion, however, is also necessary, because the danger of a subjugation of thinking by feeling has not disappeared even in the case of absolute values. They can be overemphasized as they are when some humanists use the ideals of truth, goodness and beauty to replace religion, transforming them wrongly into final entities, sufficient in themselves. It is true that the consequences of this mistake can hardly be compared with those of fanaticism, for these ideals are bound to contribute to a good life. The perils of extreme humanism spring from other sources—from the overrating of reason and a disregard for the limitations of knowledge. But if we are not clear about what the absolute

values really are, misconceptions will take their place, producing dangerous substitutes. Rigid morality has already been mentioned as one such instance; a wrong idea of truth, an exaggerated cult of beauty—these too estrange man from life and can make him ruthless.

The Negative Values

Before continuing in the next chapter our discussion of absolute values, a minor and yet important point must be mentioned: not only the positive, but also the negative values are very real. Negative statements concerning values can have two different meanings. If I say, for instance, "this is not pleasant", I can mean (occasionally) that it belongs to another category, that it is more serious than a matter of pleasure and should be judged by other standards; or (more frequently) that it is unpleasant. That something is unpleasant, however, or evil or ugly, does not merely indicate absence of the positive quality, or a lesser degree of it, but very definitely the presence of the negative quality, causing quite the opposite experience. Moreover, positive and negative values belong together; we cannot increase our sensitivity to goodness and beauty without becoming, at the same time, more sensitive to evil and ugliness and more easily and painfully hurt by them.¹ Therefore, we should be very much aware of our negative statements about values and see clearly whether we simply mean that we have a poor opinion of something or whether we are making (or ought to make) a negative value-judgement. If we say, for instance, "this is not good", we can either mean that it is not a matter of good or evil (that an action is, for example, socially unacceptable or futile), or that it can be only called fairly good; if, however we say so without realizing that we actually mean, or ought to mean, "this is evil", our evaluation will remain vague and incomplete.

The negative values are important at all stages of any scale of values, but particularly as the negative part of

¹ Cf. J. Macmurray, *Reason and Emotion*, pp. 45-6.

absolute values. Just as to deny our responsibility is no escape (for neglect of it contributes almost as much to the growth of nihilism as acceptance of nihilism itself), so too denial of the positive absolute values does not simply dismiss them, but makes us contribute to the negative side. It makes no difference that we may have only wanted to be more cautious or empirical in our judgement, or escape the need to make a judgement. Denial of absolute truth supports the belief that everything is only relative and nothing can be fully trusted—that, in fact, nothing is ever really true. To believe that we can get at truth by replacing discredited theories with new ones (which, in their turn, will have to be replaced sooner or later), means, in effect, denying that anything can be accepted as true. Denial of absolute moral standards undermines morality; to explain morality in terms of the historical, sociological and psychological elements (which are certainly important) is to put conscience on a par with custom. Even denial of absolute beauty which makes everything a matter of taste is, as we shall see, to debase it; for the three absolute values belong together. Since any feeling implies, in fact, a value-judgement, and since negative statements evoke negative feelings, we do not escape commitment by cautious or sceptical negations.

But are we really justified in believing in the existence of absolute values? We shall try, in the next chapter, to show how they can be recognized. As they cannot be deduced from anything else, nor fully defined, but have to be made real by our experience, only the confrontation with them can help us to decide whether we are really forced to accept them and whether to deny them would mean denying what we actually know from experience.

CHAPTER VII

TRUTH, GOODNESS AND BEAUTY

THE neglect of the realm of values can be seen in the fact that there is, so far as I know, no attempt to discover why there are three absolute values, and not more or less. The nineteenth-century school of psychology tried to connect them with the three human faculties—truth with thinking, goodness with willing, beauty with feeling. But it is not difficult to see that these convenient correlations are false; all value-judgements are based on feeling and translated into thought, and all of them influence willing, because once any positive value is recognized, the will to strive for it is awakened. At the same time, the traditional number has rarely been doubted; occasionally there were attempts to introduce a new absolute value, such as nobility, but none of these additions has been eventually accepted. The tradition seems indeed very firm; practically anyone, when asked to name the absolute values, will reply automatically: "Truth, goodness and beauty".

Yet perhaps this is only a sign of indifference. We would be wrong to suppose that this answer, although almost universal, can be identified with belief in the absolute values. What does "truth is a value" mean? Few will doubt that truth is something beyond question, that is, absolute; they will probably accept it as the highest aim, but they will think of it as correct scientific knowledge or a statement of indubitable fact. Of the three values, goodness is the most frequently recognized both as a value and as existing as an absolute standard; and although hardly anyone will doubt that beauty is a value, in this case the claim that it is absolute will be doubted. In enumerating the three absolute

values it seems we react automatically without considering our belief about them.

The main question we shall try to answer is what we ought to imply when we say that these are absolute values. The subsidiary question with which we shall deal is why there are three, and neither more or less, such values.

Truth

The difficulty about truth, as we have just said, is to see why it should be considered as a value. We often use the word when no value can possibly be meant; we say, for instance, "it is true that this is gold". But this is a statement of fact rather than one which we really consider as a "truth". In any more important context, the word certainly still points towards an ultimate and unshakable truth; we expect truth to convey a more fundamental revelation. In the case of objects we shall go on exploring, and in the end our gold will consist of electrons. But this explanation is based on a scientific theory; theories are based on hypotheses, on assumptions, and are open to change. Does an encyclopædia of physics, containing a correct summary of all that physicists know at the moment, appear to us as a repository of truth? It may for some, but even they will probably hesitate if we elaborate this example. We have mentioned before that there is an obvious difference between, say, an article in an encyclopædia, correct as it may be, and our own conviction; and the word "truth" still seems to suggest my personal conviction—if it can be firmly held—rather than an encyclopædia correctly summing up all present-day knowledge (including all physical theories). Our personal participation, essential for any value, seems equally to be of consequence in the case of truth.

To make our discussion easier, I want to distinguish between "correct statements" and "truth".

Correct statements are those which either refer to ascertained facts ("this is gold"); or to scientific explanations ("it consists of electrons"); or to historical statements;

and to combinations of these three categories. In short, correct statements are those which can be tested within external reality, and which any deviation from the known facts and any new discovery of fact require us to alter. They represent our external knowledge and are correct so far as we can see at the moment; it is they which form the main content of any good encyclopædia. It is true that there are many indubitable statements of fact among them, but the more indubitable they are, the less they convey ("this is a table"; "war was declared on 3 September, 1939"). We are therefore usually driven towards further elaborations, and these are susceptible to change. The possibility of change is thus also characteristic of correct statements, particularly when we approach those regions where we begin to look for a more intelligible kind of truth.

It is interesting that the simplest and most frequent definition of truth—that our statement corresponds to the fact—really only applies to what we call "correct statements". At first sight it seems highly satisfactory, but it is insufficient for two reasons; first, because it leaves out of account the influence of the laws of thinking, and second, because of the impossibility of comparing reality itself (as it would be independent of our apprehension) with its reproduction by our thoughts. These two reasons apply even in the simplest statement of fact. This way of defining truth by its correspondence to facts obviously only refers to what is correct "as far as we can see at the moment". It points to the test within external reality without doubting that this reality suffices, and, moreover, it is an entirely useless definition when we think of internal reality—which is further evidence of how far we have moved from understanding truth as a value.

The name "truth" I shall reserve for that ultimate and unshakable truth by which qualities alone it is recognizable as an absolute value. Plato's statement that, if there has to be evil and wrong in the world, it is better to suffer wrong than to do wrong, is a good example of this kind of

truth; it will be a help if it is kept in mind during the following discussion.

But how can such a truth be tested? If we remember what we have said about internal reality and the nature of values, we can discern at least six tests which can be applied.

(1) "Truth must shine in its own light."¹ This is the case with any absolute value; it must stand over against us so that we cannot possibly deny it. Truth, as it does not depend on anything further, has thus to appeal to our sense of truth; it is beyond derivation and, above all, beyond proof. We are accustomed to rely on logical or scientific proofs, but whatever can be proved in that way—such as the theory of electrons—can also be denied. Plato's statement cannot be proved in any way, but do we not disregard the truth within us if we reject it? Truth is more akin to simple factual statements than theoretical knowledge: if we say "this is a table" or "it is red" and point to it to show what we mean, we do not prove anything, but explain the name we have given to the object we perceive or the sensation we experience. Similarly, when we claim that our assertion—that responsibility and freedom exist—is true, we do not prove their existence, but expect that personal experience will confirm it. We no longer doubt the existence of a wall if we bang our head against it; what we consider as truth must be so real in our experience that we hurt ourselves when we act against it. That truth is beyond proof can be seen even within the sphere of science; mathematics is based on axioms and these, though the basis of all mathematical proofs, cannot themselves be proved; they are accepted as self-evident.

There are the obvious difficulties which we have mentioned before. If a lunatic believes that he is Cæsar or Mohammed, this conviction probably appeals more strongly to his sense of truth than anything ever appeals to that of a sane person. Dreams have a similar quality. The sense

¹ I am partly following here H. H. Farmer's discussion of truth in *God and Men*, pp. 18 ff.

of truth belongs to the realm of feeling; we have to make sure, therefore, that we are guided by that feeling which is an organ of knowledge. All the further tests contribute to a narrowing down of this scope of error.

(2) We must see truth in the right context. It is the context of society that the lunatic has obviously lost. Even mathematical axioms have to be seen in the right context, as those developed by the Greeks in the context of Euclidean geometry; they do not make sense if, as in modern geometry, we propound the curvature of space. But mathematics is purely formal; its context is the relation between things and not the things themselves; therefore, the context of mathematics is not the right context for truth which is not exhausted by purely formal relationships, but concerned with the things themselves. Neither can any purely mechanical interpretation of existence nor any form of determinism be considered as true, because they make it impossible to speak of truth at all. If any such theory were all-inclusive, my thoughts would be determined by my physiological make-up, and your thoughts by yours; we could never shake ourselves free from these fetters and no general truth could ever be discovered. Belief in complete determinism as the truth is self-contradictory. The conclusions of determinism annihilate their own validity. Only if we are at least exempt from it to such an extent that our thoughts can rise above their physiological conditioning, can our judgements claim general validity.

The right context for truth, therefore, is the world of free persons. Since it is personal participation which matters in all value-judgements, truth must concern each of us as an individual person; its importance for us must be such as to compel our attention and influence our lives, so as to call forth this participation and bring our sense of truth into action. The theory that the table consists of innumerable electrons, darting about in empty space, may be interesting, particularly as we can still write on the table, but such a theory will not influence our lives; Plato's statement, if fully

understood, does—even if we try to reject it. At the same time, truth also presupposes that we are free agents. Certainly, if complete determinism could be accepted as truth, this would be most important for our lives, but it cannot, because its tenets exclude our participation in it, any participation being a free action. This is strikingly revealed by all those teachings which attempt to accept this theory as truth, for they all suffer from the same contradiction. Both belief in a necessary progress and Marxism see every single step in human history as the necessary effect of the preceding causes, and yet both seek to influence the person to do something—to serve progress or to make a revolution—which presupposes that the person is free to influence human history by his decision. Although freedom is despised and denied by determinism, it has to be introduced in order to lend to itself the appearance of truth—to give point to human decision and behaviour. This is further evidence that there is no truth outside the world of free persons.

This should be remembered even by the scientist who has taken part in making new discoveries or developing new theories and to whose feelings, therefore, such achievements strongly appeal. His participation in them is limited to his free activity, yet even this does not mean that to this extent his activity is directed towards truth. Otherwise all our activities could be simply equated with truth.

(3) Truth must be embodied and capable of being experienced. We must always remember that truth involves a judgement that something is true; it needs embodiment in a person, in a deed, in an experience, in a statement as that of Plato expressing a fundamental characteristic of reality which has been experienced as true. But we must also remember that abstract statements are never sufficient in themselves; we have mentioned as an example the mystic whose truth we are unable to believe when we see him striving for power and money. Philosophical teachings, even if they contain many true statements, rarely appear as truth, because (apart from mistakes) it is well-nigh impossible that

all details should be based on full personal participation. Abstract statements may help us to have an experience of truth, or to remember one, or to discover the meaning of one, but they can never replace the actual experience. The statement, for instance, that love reveals our highest potentialities is probably generally accepted as true, but it is no more than a reminder as long as we do not meet love at work in ourselves or in others.

This explains why a new truth so frequently needs personal sacrifice to become powerful. Buddha had to renounce his worldly position, Confucius could not remain a minister of state, Socrates had to die, Christ had to go to Calvary, Christian martyrs in a non-Christian world knew the needs of their faith. As there is no proof, personal participation must become visible to make a new truth convincing. Socrates, for instance, could have easily escaped, but he saw and explained that this way was barred to him. He had to bear witness that his new conception of goodness—that goodness is a general human principle, transcending loyalty to a particular city-state—mattered to him profoundly; otherwise it would have seemed no more than an interesting speculation among many others. As there is no proof, it is the life each of us leads which shows that you (or I) either do believe or do not believe—no matter what; Socrates' escape would have simply meant that he did not fully believe what he taught, and thus his disciples would have been so deeply shaken that they would have been unable to follow his path.¹ If weakness of character or lack of courage prevent a sacrifice demanded in the service of truth, the insight is not thereby falsified; but this is not the way to make a new truth come to life.

Once more the difference between correct statements and truth shows itself. If we compare Socrates' attitude with that of Galileo, they seem contradictory, and yet both were

¹ The apostles were shaken in that way by Christ's death, but only so long as they did not understand its significance, interpreting it merely in terms of power and not of truth.

right. That Galileo was forced to recant means that he did not resist heroically, did not sacrifice his life, but gave in to save his life. This may not be very admirable, but was in keeping with his scientific concern, because, if he was right in his conviction that he had already proved his theories, he could rely on their being recognized as correct sooner or later. It was, as we have said, an "irrelevant factor" whether he or someone else made the experiment; in external reality "the observer" does not matter as he does in internal reality; the proof replaces him. To accept martyrdom would have been quite a superfluous gesture, for Galileo's recantation did not at all hinder or even slow down the advance of physics.¹

(4) Truth must be experienced always anew. This has become clear from all we have said before. Feelings cannot be preserved; mechanical repetitions or rules only kill feelings; the embodiment is not the value itself. To make our sense of truth active, therefore, to allow our full participation, even the same truth has to be experienced again and again in a slightly different way, at least, or in different circumstances to make its proper impact upon us. Abstract statements, as we have just said, or certain rituals, or works of philosophy or art, can help to preserve the knowledge once acquired, can help us to remember it, to pass it on, to make a new experience lead us further. These lasting elements in embodied truth and in feeling as an organ of knowledge show the connection between the two. There is, as we have emphasized, a slow accumulation of treasures of truth. But we have had also to say that even this kind of knowledge needs new experience to keep it alive, and its growth cannot support a law of progress because it loses any significance once it is no longer understood in terms of living experience. All established forms of truth can become a dead burden if they no longer evoke a new experience; even a ritual or worship, originally overwhelming, can become an empty ceremony; even the best deed, if dictated

¹ This example (though treated somewhat differently) is taken from K. Jaspers, *The Perennial Scope of Philosophy*, p. 9.

by rule alone, will be done for wrong reasons and thus become profoundly evil. As T. S. Eliot says in *Murder in the Cathedral*:

“The last temptation is the greatest treason:
To do the right deed for the wrong reason.”

The final test of truth is feeling, but a feeling which passes; it is for this very reason that no single truth can become final, but has to be for ever tested again in new experiences. There seems to be nothing more final, for him who has faith, than belief in God, yet it gradually loses its meaning if he does not live in the sight of God.

(5) Nevertheless, each partial truth “is part of the maine” and thus joined to other truths. We have said that complete absolute knowledge is impossible; we get only glimpses of truth and thus see only single facets; but to become true, each such special truth must participate in the whole truth. For we have also said that complete absolute knowledge would be unitary; a value is absolute in so far as it makes us meet something which is absolute. Even if, therefore, our limitations prevent us from doing more than touch upon this absolute knowledge—to experience it in different ways and re-experience it—its fundamental oneness, although it cannot be expressed, must be seen and felt in all these separate glimpses. Correct statements can refer to details alone; a statement of truth which refers to details must, at the same time, indicate their place in a comprehensive order; we must recognize that by virtue of it we are at least in touch with the fundamental facts which underlie existence. When we believe that it is better to suffer wrong than to do wrong, we obviously imply a certain world-order, and then our whole conception of existence would have to be changed if, having held the statement to be true, we were forced to reject it.

It is probably the main characteristic of any truth or any absolute value that, although it gives only partial insight and although we can never have a comprehensive knowledge

which is absolute, our ideas about the fundamental order of existence have to be modified if a partial truth has to be abandoned.

(6) We should doubt neither too little nor too much. This condition may sound too imprecise to be good philosophy, particularly as the point where doubt should end and acceptance begin cannot possibly be fixed. But it is important to be aware of these two errors, for by remaining aware of the dangers of these opposite extremes in all our judgements concerning truth we can considerably reduce the scope of error.

Doubting too little means credulity, and this is probably the lesser danger today, apart from our readiness to believe the scientists. At the beginning of the development of modern philosophy stands Descartes who made it a duty to doubt everything which can possibly be doubted, and his demand has been obeyed, at least in theory, by most philosophers since; doubt is more or less accepted as being the origin of philosophy. But long before that Plato said, rightly, that there is no philosophical statement of which the obverse could not be asserted equally well; as this is so, can doubt ever cease, can we ever come to a positive result? More recently, Kierkegaard pointed out that this emphasis on doubting was only fruitful because there were regions which doubt could not reach, which were unconsciously considered as being beyond doubt, such as moral standards; doubt only removed credulity where it was inappropriate. Obviously, doubt cannot have the same effect in an age in which everything has become open to doubt, when it can shake the very foundations of existence. Kierkegaard therefore returned to Aristotle's definition of the origin of philosophy—that it begins with astonishment and not with doubt; he saw that we need a positive experience to lead us to positive results which are, after all, the aim of philosophy. But this means that we must know what to accept, without being misled into accepting assertions which are really open to justifiable doubt.

Doubt is important when thinking is subjugated by feeling; but, unfortunately, fanaticism makes doubting extremely difficult. Acceptance is particularly important with regard to absolute values; as they are based on meeting something absolute, we destroy them if we fail to recognize when our experience is so compelling that further doubt would be a denial of what we actually know to be true. Here, however, doubt is easy; the validity of any experience can be intellectually doubted. Acceptance, therefore, is more important for us; the destruction of the absolute values—that is, of our most precious experience—is a very real danger in our world. It is the absolute values, moreover, which can best help us to combat fanaticism, for once we reach the level of these values, friendship between men of different nations, convictions and creeds becomes possible.

Doubt has a great fascination because it is an easy self-defence. So long as we doubt everything, we can hardly be proved wrong; when we accept, we may be the dupes of error. But is it really better to continue in endless doubting than to risk error for the sake of attaining truth? Doubt, though it protects our pride, robs us of any positive foothold in truth.

As truth needs personal participation, error cannot be avoided, as it can with correct statements which are susceptible to proof. Error, however, is only dangerous if we seek truth where we cannot possibly find it, for then our search for truth, never rewarded by finding truth, drives us on and on in the wrong direction. This is probably an important impetus for the enormous drive of science which cannot be halted even in the face of world-peril, and the same impetus is undoubtedly at work in all fanaticism. It is for this reason that the tests which we have suggested are so important, because they make sure, even if they do not eliminate *the lack of finality*, that we seek truth in the right direction. If we do, single errors do not matter very much, more probably than not they contribute to a later development of knowledge. Error is the price both of seeking and

accepting truth and we should not be afraid of paying it; in spite of this, truth is still superior to unerring correct statements, because it gives us glimpses of the meaning of our lives. Nevertheless, the very great exertions of the scientists to make correct statements proof against error should be kept in mind as well. Only if we—in our search for truth—are as conscientious and exacting as they are as scientists will our rejection of doubt be exercised at the right point and our acceptance have its full weight.

Goodness

As goodness is still frequently recognized as an absolute value, and as so many of our examples have been taken from its realm, we need not add much to what has been said before.

All denials that goodness is absolute fail to account for at least two facts. When goodness is considered as a relative value—that is, as a product of other factors, such as biological evolution or psychological forces or the influence of society, tradition and education—a further purpose of goodness must be established. The purpose usually postulated is some kind of survival value, either for the species man, or for society, or for the individual—by making him fit to be a member of society or to defeat his own destructive instincts. But many of the moral commandments do not necessarily contribute to survival and may even endanger it; to offer one's other cheek, to love one's enemy, to refrain from resisting evil, although commands undoubtedly of the highest possible moral order, betray no regard whatsoever for a man's life or for society. On the contrary, all these commands can be obeyed only at the risk of a grave conflict with society and of sacrificing one's life; they can have no other purpose but goodness itself. Ruthlessness—in accordance with the theory of evolution—seems much more efficient so far as survival is concerned. It is true that individual ruthlessness has to be curbed to make social life possible, but society itself, to survive, has to be in many

respects ruthless. From this point of view, the prosecutors of Socrates were right, for his new idea of goodness, embracing all mankind, was really dangerous for the city-state.

Moreover, if society were the determining factor, how could it be explained that so much advance in our knowledge of goodness was opposed by society, often so fiercely that those taking the new steps were executed? In fact, many commandments, such as those just mentioned, are still opposed by society, even if their place in religion secures for them a superficial respect.

Goodness is, at one and the same time, in some respects the most certain and in some respects the most open to misapplication of the absolute values.

It is most certain because, since it applies to action, it can be tested much more directly and conclusively than truth and beauty. Both truth and beauty must shine in their own light, and all the tests we have suggested (and shall suggest in the discussion of beauty) are only indirect supports of our judgements; goodness, as we have to act upon it, is directly tested by the results we achieve. If we do what we believe to be good we shall more fully recognize what our conviction really means and where it leads to. This is not to say that the result must conform to our preconceived ideas, that it simply confirms them by success or invalidates them by failure. This may be so; but we have seen before that, when the result is quite different from what we expected—success disappointing and failure a relief—these contradictions can correct and amplify our knowledge of what is really good. As always, we must not expect perfection and complete avoidance of error, but—with goodness and not with the other values—we can learn to establish a very close and revealing connection between our beliefs and our actions. The appearance of goodness can hide very different—and even immoral—intentions and motives; but spurious goodness will hardly suffice to mislead us indefinitely if we are honestly concerned with true goodness. Truth will

not be disguised for ever either in our own case or in the actions of others. We actually recognize—it may be but dimly—the fruits by which we shall know ourselves and others.

This gives to goodness a greater significance than is usually realized for judging abstract ideas which appear as true, for they can be—in the last resort—only tested by goodness. Neither belief in a necessary evolution leading to constant progress through a savage life and death struggle nor totalitarianism could have exercised the disastrous attraction which they had, if they had been submitted to a moral judgement; nor could natural science lead us so far astray as it has done and is still doing. Truth and beauty alone will never enable us to find our way through the wilderness of fascinating abstract ideas.

At the same time, however, goodness is in some respects the least secure of the absolute values. As it refers to activity, it can appear as a final principle which is alone sufficient to give content to the whole of our lives, especially when it is translated into moral laws. But we have had to point out more than once that moral laws, if accepted as principles without regard to personal participation, can easily petrify into cruel rules, estranging us from real goodness. If moral rules appear as self-sufficient, the effect is to overemphasize personal activity and possible merit. But very important experiences and insights are, after all, given to us—often in a most unexpected or even mysterious way—without our activity bringing them about; in fact, as we are ignorant of them in advance and therefore cannot aim at them, they are not the result of our activity. These experiences require willingness to receive, open-mindedness, passive acceptance, endurance of suffering. An overemphasis on activity easily bars the way to this kind of sensitivity and to our own readiness to listen. Such an attitude is much better safeguarded by truth and beauty which impress themselves upon us. Goodness, therefore, is not only dependent on truth—because morality must be true to be absolute—but

in a similar way, as we shall see, on beauty. This interdependence applies to all three absolute values. In addition, goodness needs balancing with the counter-weights of truth and beauty to prevent morality from making us narrow and rigid. Only then will goodness "shine in its own light", and have that overwhelming radiance which the meeting with the absolute should give to our experience of an absolute value.

Beauty

We have said that there is little general doubt that beauty is a value, but much that it can be accepted as absolute. Discussion of this problem invariably presents verbal difficulties, arising from the usage of the term. So long as the absolute values were still fully acknowledged, the meaning of the word "beauty" was of a much higher order than is now the case. For the Greeks it was one of the greatest and yet most dangerous gifts of the gods, as can be seen in the War of Troy. In the Middle Ages it was the highest attribute of God;¹ in the Renaissance beauty was not only enchanting, but also terrifying, and so it still is for some poets and artists, but rarely for anyone else.

To make our discussion easier, I should like to introduce again a distinction between two concepts and to separate matters of taste—that is, what is pleasing, appealing to our senses and to our taste, or to our sense of proportion and order—from the truly beautiful. Beauty, in this particular and probably original sense, means the complete concord between form and content—that each discloses the full meaning of the other; the external form not only symbolizes the essential quality of a part of external reality, but represents the statement which is made through, but which reaches beyond, this reality. Any more fundamental experience of beauty is either based on, or at least touches upon, such a complete identity between form and content.

There are vast regions where taste really is the highest

¹ "The beauty of God is the cause of all that exists." Thomas Aquinas.

arbiter, as with fashion or with all those products of technology which are far too readily acclaimed as "beautiful". But reliance on taste has its very definite limits. If somebody were to say, for instance, that Shakespeare is a bad dramatist, or Mozart a bad composer, we should hardly reply that such judgements are a matter of taste and leave it at that. We could be certain that he did not understand what he was talking about. To confuse the sphere in which taste is appropriate with the sphere of beauty has its obvious dangers; once everything is dependent on taste alone, beauty loses its importance and compelling force and becomes a mere ornament of life and a means of indulging a desire for pleasure—which, at the very least, endangers the work of the artist and cheapens one of our most precious experiences. When we seek pleasure, it is not difficult to guard ourselves against the impact of beauty, but once we permit the impact to make itself felt, we cannot control its effects in us, and there are embodiments of beauty (such as Shakespeare's tragedies) which upset rather than please. If, however, we allow ourselves to participate in an experience of beauty, how can we be sure that our judgements are correct or—remembering that we cannot expect to eliminate errors completely—narrow down the scope of error to the same extent as with truth?

Beauty is different from the other absolute values in this respect: whereas truth and goodness are concerned with specific results (the form of expression being entirely subordinate), beauty requires of us an understanding of both form and content. An experience of absolute beauty arises when the complete identity between form and content is felt so strongly that it cannot but be acknowledged; when our sense of beauty tells us that their relationship can be neither influenced nor altered arbitrarily, because the means of expression and what is expressed are compellingly one. This experience is naturally only possible if we understand both form and content, but their understanding depends on temporal and individual conditions. This explains why there

are great fluctuations in the judgement of what is beautiful in different ages, in different countries or even with different persons. As we have not enough knowledge of, say, the Indian civilization, we cannot fully appreciate everything they find beautiful; and if somebody has no understanding of music, he cannot be expected to experience beauty in that way. Both ways of life and techniques have to be understood. It is most important to remember here what we have said before—that it is not the embodiment which is the absolute value. In contrast to the other values, examples must be chosen to suit different nations or even persons; ours will be taken therefore from the sphere of European civilization (mostly from the visual arts; musicians will be able to translate them into their own idiom). The differences within a coherent civilization actually are not so great as is sometimes assumed; most of the European styles—from Norman architecture to abstract painting—spread throughout the whole of Europe. But even the most different examples illustrate the same conclusion—that the identity between form and content has been achieved, without leaving any room for alterations or uncertainties. It is a conclusion which can be tested in several ways.

A general characteristic can help us to distinguish between matters of taste and the beautiful; this characteristic is the part which ugliness plays. In the sphere of the merely pleasant, ugliness is only negative; it is no more than a lack of a pleasure-giving quality. If a car, for instance, is ugly, this cannot be in any way a positive quality; it merely displeases and is something to be remedied. The current belief that design should be functional is appropriate where there is no scope for beauty; but functional designs, in fact, lead away from beauty into uniformity. Beauty, however, can embrace ugliness. The monsters in Gothic cathedrals have their proper place within the context of beauty, just as Shakespeare's tragedies or even comedies include the horrible. An ugly face cannot be pleasing to our senses, but it can—if it is the expression of a strong or good character—

be beautiful. In the car, there is nothing to be expressed beyond a desire for speed and comfort, and therefore ugliness of design is no more than an expression of failure to please. In so far as the car expresses usefulness, its appearance symbolizes a value—but a relative one, ever changing—which is obviously insufficient to make us experience something of greater significance or of lasting value.

Naturally, just as there are facets of truth, there is imperfect beauty, but the difference between it and the matters of taste still remains the same.

Imperfect beauty shows lack of harmony, because parts of the work of art are not expressive and remain empty, or they are out of tune with the successful parts, expressing something foreign to the rest or on a different level. The work may thus become ugly, but this is not the reason why it is unsuccessful, and its partial success will still consist in the identity between form and content being partly achieved. If we fail to create something pleasant, however, its lack of harmony is nothing but ugly, and the degree of ugliness will decide whether or not it is rejected. We are entitled, therefore, to base our discussion on perfect examples.

Furthermore, some of the tests which we have mentioned when discussing truth are a help here too. Of these some are self-evident and never absent and therefore no test; beauty obviously must shine in its own light, it must be embodied and be experienced to come to life, and acceptance is much more a matter of course than with truth. But the other points can serve to elucidate the experience of beauty and show what it means to see it as an absolute value.

It is true that judging beauty is different from judging truth, for the origin of beauty is, in certain respects, the opposite of that of truth. When searching for truth, we try to penetrate underneath the surface to reach the innermost core of existence without, perhaps, attaining it; when creating something beautiful, we start from some experience or vision of this core and try to find the right expression

and form for it. Moreover, in our experience of beauty the core is never in question, but has to be grasped through the form and from the surface. For this very reason, however, truth and beauty can also support each other. When an experience of beauty enables us to see something which has the characteristics of truth (as they have been described), it confirms that we have touched upon this core in our search for truth, and such a confirmation can make us conscious of elements of beauty which are otherwise overlooked. We can, in this way, see more clearly what the experience of beauty implies and learn to judge it more reliably.

First, the experience of beauty confirms the existence of the world of free persons. This can be illustrated by the now famous controversy between the impressionist and expressionist painters. The former proclaimed that it is irrelevant whether one paints a madonna or a bunch of asparagus; the only thing which matters is the quality of the painting. The expressionists retorted that it is much more important to paint a madonna or something of real significance than to concentrate on the texture of the painting. The expressionists were both right and wrong. Right in so far as the husk of the sphere of taste—to which we react quickly and superficially—has to be pierced to allow an appeal to our sense of beauty, and to do that a work of art has to be important for us. But they were wrong because it is the identity between form and content which produces beauty; a good painting of a bunch of asparagus can therefore be better than a bad one of a madonna. In fact we need something which is both worth expressing and well expressed. The flow of indifferent landscapes released by impressionism has been just as damaging to our appreciation of beauty as the later disregard for good painting.

This means that both personal experience and freedom are essential. On the one hand, we must be really concerned. A landscape or still life can make the necessary impact, but to do so it must touch upon those foundations of existence

which also belong to the world of persons. On the other hand, to appreciate the form of expression at the same time needs detachment—that is, freedom from any pressing need, freedom to abandon oneself to simple looking. If we have lost our way and the coming of night means danger, we shall hardly be able to appreciate the beauty of a sunset. If we are not detached, we are easily misled by the subject-matter and have an intellectual experience instead of one of beauty. As with any absolute value, beauty must appeal strongly to us and yet be felt to be valuable in itself; its experience therefore presupposes that we react as persons who are not dominated by anything else.

Second, beauty must also be accessible to experience, and if it is, it confirms that there is a meeting with the absolute. The identity between form and content—which requires that every single detail of the form gives full expression to the content—can only be brought about by their being perfectly adapted to each other, the one informing the other: each work of art is, in fact, unique. This has led to a great danger in modern art, in poetry and music as well as in painting and sculpture—that the artist tries to express his individual experiences in all their details so exactly that the work speaks nothing but his private idiom and can no longer be fully understood by anyone else. It is only when he succeeds in giving form to a meeting with the absolute—an experience which, in all its different forms, is fundamentally the same for everybody—that his work becomes generally accessible. In other words, any embodiment of beauty is a symbol of some facet of the ultimate foundations of existence, and if a valid symbol is created, we understand it because it gives us access to the common ground of human experience.

This participation in the absolute is also the reason why most of our examples have to be taken from the realm of the arts. Beauty in nature, though probably the most common and the most immediate experience of beauty, is the most difficult to discuss. Nature transcends man im-

mensely; the absolute which is touched in its beauty must be the very basis of existence and not a symbol of it; it can be felt, but not fully expressed. In a work of art, there is the embodiment of an experience, limited by the grasp and powers of expression of the artist. In nature beauty is unlimited; the beholder can experience all that he is able, which is bound to transcend—even in the case of an artist—the powers of his articulate expression.

Third, any embodiment of beauty must give access to the same absolute. This may sound surprising when we remember how manifold and varied these embodiments are, but by bearing it in mind we can better understand one of the most puzzling characteristics of beauty—the importance of the passage of time for assessing the reliability of our judgements—and this once more confirms that we actually experience a meeting with the absolute.

The great uncertainty about the value of works of art, which is so often seen as a proof against the absoluteness of beauty, really refers mainly to contemporary art; it is obviously our failure to come to an agreement about its value that has given such popularity to the belief that beauty is merely a matter of taste. For, concerning works of art of the past, there is a large body of accepted value-judgements. There are certain fluctuations there too; the beauty of Gothic cathedrals is a fairly recent rediscovery and that of the poetry of John Donne a very recent one, while such painters as Raphael and Murillo are no longer as highly appreciated as in the last century. Some artists or periods may be forgotten for a time and rediscovered, some errors corrected, but, on the whole, there is general agreement about works of the past and, apart from borderline cases, astonishingly little doubt and fluctuation. This contrast in value-judgement between the old and the new can be understood, however, when we take into account the meeting with the absolute. The great genius is ahead of his time, a contemporary of future generations; we uninitiated mortals, therefore, who are his contemporaries, are not yet able to

decide whether his originality is just an individual aberration or a new and valid way to the absolute. But the passage of time will do the sorting out. The absolute, as we have said, is a common experience; if an artist has really found a new access to it, others will gradually follow; the new way will establish itself, and it will survive, because the absolute is one and unchanging. Actually, the sphere of uncertain judgements is very small when compared with that of accepted judgements; the reason for this lies in the fact that the experience of the absolute is something real which makes itself felt.

The Relationship between the Three Absolute Values

As always in an abstract discussion, we have had to separate the three absolute values more distinctly than they are separated in our actual experience. We have indicated some inter-connections, but there are more. Beauty, if it is to touch upon the absolute, has to be based on truth; and that "shining in its own light" whether it occurs with truth or goodness is, in fact, beauty. The deterioration of the concept of beauty helps to hide the interconnection; we hardly ever consider a character or a good deed as beautiful; but beauty is present whenever human relationships are pure and admirable, or a character or deed is the complete expression of a man's feelings, convictions or intentions. A perfect friendship, an enduring love between man and woman, the repentant sinner, the father who welcomes the returning prodigal, any great and costly sacrifice—is there any other concept but beauty which can do justice to the particular quality of such experiences?

Nevertheless, it would be wrong to attempt a unification of these values. Keats' exclamation: "Beauty is truth, truth beauty"¹ is only half correct, for, as we have seen, truth and beauty are opposite ways of meeting with the absolute: truth leads towards it; beauty comes to us from it. There is, above all, one great gap—beauty need not be good, for

¹ *Ode on a Grecian Urn.*

pure vitality or even evil can find a perfect form of expression. The beauty of a strong life is akin to the inexplicable beauty of nature; indeed, it is a manifestation of it. So long as the conception of beauty was fully alive and seen as touching upon the ultimate foundations of existence, the beauty of evil was felt to be a frightening mystery, because the fact that it could appear in this form seemed to indicate that evil is woven into the ultimate fabric of being. This is the significance of the original myth that the devil is not, as in the Middle Ages, an ugly creature, but a fallen angel of outstanding beauty; and in the Renaissance the realization that a most beautiful face could hide utter wickedness excited fascination mixed with terror. These are only a few examples to show that the all-inclusive unity, which is beyond reach in external reality, is no more possible in the sphere of the absolute values.

In fact, the absolute values correspond to the three different ways in which we can try to approach internal reality, and experience of them arises whenever our approach has been successful. There are, so far as I can see, only these three major roads to internal reality, and this may help to explain why there are three—and not more or less—absolute values.

(1) When our consciousness awakens, we become first aware of external reality, but we have to break through it to be able to do justice to our inner experiences. We must penetrate underneath the surface of our lives, to interpret or unmask appearances; and this, as we have seen, is the road by which truth is approached.

It explains, too, why the search for truth can so easily be misdirected, for natural science in its search for hidden causes and more basic explanations also seems to penetrate underneath the surface. But it still remains within external reality; and it is only by recognizing the limitations of external knowledge and by distinguishing it from internal reality—where alone we can get glimpses of the absolute—that truth can be experienced.

(2) We have said that freedom would be a sham-freedom if it could never lead to action. If we want internal reality to be felt and known as just as real as external reality, we obviously must perform actions giving expression to it in external reality. Action in freedom is the road by which goodness is approached, and goodness comes into being when we succeed in acting in full accordance with internal reality.

(3) A feeling must have an object to become clearly conscious; a value must have an embodiment to become real; an inner experience needs some kind of articulate expression to become concrete and intelligible. Internal reality in general needs a definite form to be made real; otherwise a flux of vague feelings, vague urges and vague thoughts do no more than indicate that there is something within us waiting for an expression whereby they may be grasped. It is when we succeed in finding a form—either by creating or experiencing it—to express fully any of the facets of our inner experiences that beauty arises.

The process of evaluation leading from lesser values towards absolute values and the absolute values themselves give us the fullest and clearest idea of internal reality, but they by no means represent all of it.

We have to return, therefore, to our general discussion, but perhaps now with a better understanding of what the term "internal reality" means and implies, and with the confidence that internal reality can stand up to external reality, despite the overwhelming superiority which it seems to enjoy at present.

Another comparison may support this hope. Modern physicists believe they have discovered an absolute reality behind the physical world which cannot be directly grasped, but from which we are able to extricate single data. This seems to be a kind of equivalent to our internal "glimpses of the absolute". Max Planck calls one of these data—namely the inexplicable elementary constant quantum of energy which he has discovered—"a new mysterious

messenger from the real world.”¹ Is it not surprising to find the personal term “mysterious messenger” applied to the number symbolized by “q” which is entirely meaningless outside its physical or mathematical context? Is there really a message for us? The words “absolute” and “real” apply here to something entirely impersonal. In contrast to Planck, the conclusion to be drawn from this book is that there is no absolute knowledge to be found in external reality, but that we get glimpses of it in internal reality, particularly when experiencing absolute values. They are certainly not so exact as mathematics, but they are full of meaning and able to give content to our lives—a content of richness and fullness which no knowledge of external reality is able to contribute. It seems improbable, therefore, that external reality is really as superior as it sometimes appears.

¹ *Das Weltbild der neuen Physik*, p. 19.

CHAPTER VIII

KNOWLEDGE AND FAITH

IN the nineteenth century, belief of almost every kind was seriously eroded. To the majority of those people who were instrumental in shaping the views of the age, belief seemed only a weak and temporary substitute for knowledge, and religious faith an obsolete superstition.¹ The stupendous advance of natural science gave them confidence that, in due course, all problems could be solved by scientific knowledge. In the meantime, we have witnessed some return to faith, but it has not made itself felt sufficiently to exercise any great influence. Not only has the exclusive reliance on science survived and even been strengthened in both the Marxist and non-Marxist parts of our world; but also even those (and there are probably many) who are sincerely longing for faith seem to feel that to do so is not quite legitimate. They feel the need to find excuses for the lack of evidence because—perhaps more or less unconsciously—they believe that external facts alone can be considered as evidence. Inner experience, they feel, is of inferior status and cannot compete with them in a world concerned with proven facts. The truly faithful may have been in a minority in all ages; they are certainly conspicuously so today. Is there, then, sufficient substance for the prevalent doubts, or can faith be defended in the light of knowledge?

A sign of how vulnerable the position of the defenders of faith still is, appears in the exaggerated enthusiasm with

¹ We shall use the word "belief" when referring to acceptance of the explanation of particular problems and the word "faith" when referring to acceptance of a transcendental explanation of the ultimate foundations of existence.

which modern physics has been welcomed by them. Certainly modern physics, considered from that point of view, is—for the reasons already given—important in a negative sense; as we saw, in the first chapter, it has destroyed the dogmatic belief in complete mechanical determination—that is, in an all-inclusive external necessity; and particularly important is the fact that this has happened in what seemed the most secure stronghold of exact science. But in the context of the validation of faith its positive value is negligible. To rejoice in the evidence of modern physics for a mysterious and inexplicable region behind all physical phenomena, apparently making room for quite a different approach and even for freedom, is to share in the decline of reliance on all but scientific knowledge. Moreover, as we have seen, the physicists themselves cannot extricate from that region—even though some of them call it “absolute reality”—anything but incomprehensible data; it has therefore no positive importance outside physics. In fact, we court inevitable disappointment if we expect the physicists to provide the foundations for our religious faith, for the investigation of external reality can neither add to, nor detract from, the knowledge which belongs to the sphere of faith. We have to break through to internal reality; freedom remains meaningless in the sphere of electrons.

The difference between external knowledge and faith should not be diminished. It is true that even science needs two kinds of belief. Fundamentally it is based on presuppositions which have to be believed to make science possible, such as, for example, that the universe is an ordered universe or that the laws of thinking are reliable. In practice a scientist has to believe other scientists and we in turn have to believe most of what they tell us, for nobody can acquire and test for himself all the knowledge he must use. But neither of these kinds of belief is essential. On the one hand, it is possible to isolate external knowledge by ignoring its necessary presuppositions; we have seen that it is even natural to do so, because we gain the advantage of being

able to limit our attention.¹ We have seen, too, that in a wider context the effect of dispensing with the presuppositions is to remove the whole basis of our knowledge. Nevertheless, if we do concentrate on the structure of external knowledge alone, we can dismiss the need for belief and rely exclusively on knowledge. On the other hand, the fact that in practice we believe others is irrelevant. If I hear about an experiment, for instance, I need not believe the findings, but could—at least in theory—acquire the necessary knowledge and make it myself, in order to see whether what I am told is correct; or if I read of historical events, I could look up the sources and documents myself to find out whether the historian's account is justified. Faith, on the contrary, is essentially based on believing; it refers to facts and events of which I can only have knowledge because they are revealed to me in one way or another. The tests applicable to external knowledge are not possible nor is complete proof ever available; I have to respond with an act of faith, of acceptance, with a constantly renewed willingness to believe. Knowledge can be stated once for all and it is not lost as long as we possess the statements and understand them; faith, in requiring an act of faith, can be lost even if we possess all its documents and know what we ought to believe.

The boundaries between internal knowledge and faith are less sharp than those between faith and external knowledge, because we have to accept, in both cases, inner experiences as valid tests; but the difference remains basically the same. There are elements in internal reality—such as some of the value-judgements which we have discussed, particularly moral ones—which are so generally and distinctly experienced that they can be safely considered as knowledge. They force themselves upon us, even if we are most unwilling to believe; to be known they require, not any kind of surrender on our part, but only the recognition of our actual inner experiences; we can know the moral laws even if we disobey

¹ See Chapter IV, pp. 81 ff.

them. When we have faith, we also expect it to be confirmed by experience—we expect the facts which are revealed to us in the mysterious regions of the absolute, such as the existence of God, to acquire a deeper and larger meaning as life in faith grows. These experiences, however, do not force faith upon us; nor can we be forced or persuaded into faith in any other way. Faith is not, as conscience, simply alive within us; it has to be acquired through an act of faith and cannot be understood beforehand. Unless our active acceptance is constantly at work or renewed, anything we can say about the facts of faith remains meaningless; the revealed facts are not even facts without faith. We can always appeal to conscience, but none of the proofs of the existence of God, developed throughout the ages, has ever been convincing for anybody who did not already believe. The mystery remains a mystery and does not become a knowledge which can be conveyed; and it is only deepened when we discover that, although an act of faith is required, we cannot force ourselves to make it; it has to be given to us. This we shall discuss in a moment.

Our investigation has made clear that there is room for faith, for there are, in fact, vast regions of reality where the possibility of knowledge is excluded. Faith, therefore, since it refers to something outside knowledge, cannot merely be its substitute, but must be fundamentally different from it. Both external and internal reality are only aspects of one reality, aspects under which it appears to us. But because we cannot see it as one, we are unable to acquire, by our own exertions, a knowledge which is comprehensive as well as absolute; if there is to be such a knowledge at all, it has to be revealed to us and we have to accept what we are told. Yet this does not settle the question of whether such an acceptance can be justified philosophically.

The position of the philosopher is, in this respect, rather difficult. He is concerned with knowledge; faith, therefore, is beyond the scope of philosophy. At the same time, he must deal with the phenomenon of faith and see whether or

not it has a justifiable place in thinking; unless he does so, he will hardly be able to recognize the all-important limitations of knowledge. Those who build metaphysical systems to replace faith disregard the theory of knowledge no less than the materialists who deny that any faith is necessary. Moreover, the purely logical treatment of religious statements by-passes the problem of absolute knowledge without fully acknowledging it. We have to discuss faith, therefore, but with full awareness of the fact that we can only approach it from outside; that is, we can discuss its place and possible justification, but not its actual statements and contents.¹

Once more we can only erect signposts which show the right direction of thinking and must be careful to avoid even giving the impression that we replace the act of faith by abstract thought.

The word "absolute" which we have discussed before can help to show what is to be done. We have said that in its literal meaning—stating that something has the quality of being ultimate, underived from anything else and therefore incapable of further explanation—it is a simple factual word. But we can hardly use it without entirely avoiding the term "the absolute"; thence it is no longer a definite quality, but indicates that there is some kind of embodiment of absoluteness at the very core of our existence. At this point we reach the boundaries of knowledge, and of philosophy which strives for knowledge. The word indicates this very well, for as we are unable to know the absolute, it remains undefinable and empty, but it implies something to be looked for beyond the knowable, just as the word "boundaries" implies that there is a farther realm which we cannot reach. With religion, however, this is the starting point, because for the believer "the Absolute" is not empty, but God (or a spiritual reality of some kind) and thus real and full of inexhaustible

¹ For this reason, the discussion of the differences between different religions is also outside the scope of philosophy. We shall therefore—apart from occasional references to other religions—base our discussion mainly on the Christian religion. This is, in any case, justified by the fact that it is the most important faith for us.

meaning. We can therefore see that knowledge points towards faith, because "the absolute" is implied in knowledge, in spite of the fact that it transcends it and has to be brought to life by faith. The philosopher cannot, within philosophy, legitimately claim that there is a God (even though many have done so), but he can show some of the right approaches to faith.

The word "the absolute" is characteristic, too, of the fact that all such terms which are only just within the boundary of philosophy are approached in religion, so to speak, from the other side, where their meaning is fundamentally different. When discussing such concepts, we should not minimize or forget this difference. But, with that reservation in mind, some concepts which frequently appear as purely religious—that is, as outside any other experience—can become understandable through our discussion of internal reality. The first step, since we have to refer to inner experiences, must be to look at this reality in order to understand faith.

We have just said that faith, though it requires an act of faith on our part, has still to be given to us—in other words, that it is dependent on grace and revelation. But this is also characteristic of any intuition, particularly when it helps us to understand embodiments of internal reality. We cannot *make* ourselves appreciate the beauty of, say, a poem; it may "reveal" its beauty to us at once or never, or we may read it many times without full understanding and then suddenly understand it. We may try hard to act in accordance with the moral laws and only feel the strain of so doing, until the experience of goodness in another person brings the moral laws to life and we realize what we had missed before. None of our endeavours can directly achieve final understanding of the poem or of goodness; understanding is pure "grace". Certainly, we have to be willing to respond to such an experience, to accept it, to live through it, otherwise it will pass unnoticed or without consequence. We need, as we have said, personal participation. But even the

will to participate is not of itself sufficient to make participation possible; we have to knock at the door, but it has to be opened for us. Our striving is required, yet none of our endeavours can guarantee the attainment of what we seek. Only the faithful can trust that they will, for faith means trust in revelation and grace. As so often in the world of persons, we have to abandon the idea that we can explain what happens by the connection between cause and effect; both in internal reality and in the sphere of faith the conception of grace describes the connection between intention and result far more correctly.

The close relationship between religion and internal reality can also be seen from the religious side. The difference between external and internal reality can be expressed by saying that we are concerned in the one with facts, in the other with meaning which has to be understood by experience. We have mentioned as characteristics of internal reality that it has to be made real by our personal participation, that the experience of the absolute values discloses something within reality which is objective and yet as if waiting for our approach, because it cannot be disclosed in any other way. All these characteristics imply that we grasp, not merely the facts as such, but what they mean for us. This is also the demand of religion, particularly of Christian religion (and probably its special distinction). Christian revelation gives us only a few indications of a metaphysical explanation of reality; we are told that God created the world, but not why there is matter, or the universe, or man, or why man must sin, and only very little about life after death. Instead, the revelation emphasizes again and again that God is Love, that our deeds are of consequence and will be judged, that God is good and wants us to be good. In short, the revelation appeals to that kind of understanding which we acquire in internal reality, and can be understood in terms related to the meaning of our own experience. It is very significant, too, that the historical facts which are claimed to be the foundation of

Christianity—such as Jesus being the Son of God, or the resurrection—are hardly accepted by anybody who has not understood their meaning. For others, after all, even the existence of Jesus is in doubt.

Philosophy and religion meet most directly in morality. Everything we have said about morality is confirmed when we look at it from the religious point of view.

Originally religion and morality developed separately. Most of the primitive religions were cruel and inhuman, demanding the sacrifice of children, of virgins, of enemies; moreover, their idols were represented in terrifying animal disguises. Those who deny the validity of faith frequently claim that the gods or God are an enlarged image of man, quoting the Greek saying that, if the oxen had a god, he would be an ox, but this view entirely contradicts the facts.¹

Religion was at first an expression of the tremendous and terrifying mystery behind existence. Morality existed, too, but did not develop far; in its primitive form it was a collection of very strict rules. Some of these were purely practical; others, based on human relationships and social demands, came nearer morality in the present sense of the word; but there were also the rules enforced by the cruel demands of the gods. All the great religions which have survived, however, came into being with the conjunction of religion and morality, when it was recognized that God is also good. This new concept changed both morality and

¹ "There is the assertion that the gods are nothing but glorified men and that man has fashioned God in his own image and likeness. . . . But the processes of actual religion have been quite different. It has developed not from the homely and the familiar but from the uncanny, rising to the 'wholly other' which is remote from everything human. This 'wholly other' is the mysterious underlying framework to which all that is rational is but the superstructure; it permeates all that is 'anthropomorphic', and the anthropomorphic element is not primary, but an accretion. . . . When the goddesses and gods became elegant, charming and human, belief in them was not at its prime, as would be the case if the anthropomorphic view were correct, but was already in its decline, and they were being superseded by the foreign gods from Egypt and from the Far East for the very reason that these gods again were strange and 'wholly other'." R. Otto, *Religious Essays*, pp. 78-9.

religion. Morality, based on the full realization of the absolute value of goodness, led to the understanding of the innermost nature of man, which made the value "goodness" so secure that it could be known and discussed; while, because of its foundation in religion, it was at the same time released from being a mere obedience to rules. Religion, on the other hand, found solid ground in morality which saved it from the excesses of religious fantasy, which arose because religion could not find expression in behaviour and actions that could be rationally tested. This relationship between religion and morality has certainly been disregarded and falsified time and again, but it is nevertheless so clear that it has always been re-established. We can hardly doubt that—as John Oman beautifully expresses it—"religion, without morality, lacks a solid earth to walk on", while "morality, without religion, lacks a wide heaven to breathe in."¹

We have said that goodness is, at one and the same time, the most secure and the most open to misapplication of the absolute values, and that the dangers of a self-sufficient morality of rules have to be counteracted by including truth and beauty; for only if goodness is based on them does it reveal its full radiance. The combination of all three absolute values is the nearest we can get to the "absolute" in philosophy. All these characteristics of goodness are confirmed by the light which religion sheds on morality, and once more the meaning of "the absolute" is considerably deepened and enlarged, but in a way which links up with philosophy. By reason of being the most secure of the absolute values, goodness is the aspect of religion which can be most profitably discussed and upon which a philosophical discussion of religion can be best based. If we want to convince somebody of the justification of religion, we certainly do better to appeal to his conscience and his actual experience of the absolute values and show him their foundations in an inexplicable absolute than to rely on the

¹ *Grace and Personality*, p. 62.

metaphysical proofs of the existence of God. A truly religious approach, however, will also include all three absolute values, thereby ensuring that goodness is no longer determined by fixed rules and preconceptions, but transcends its dangers and becomes part of the fullness of life. For we then no longer speak of crimes or the breaking of laws but of sin, of a trespassing against, and betraying of the nature of the spiritual world; or, in philosophical terms, we cut ourselves off from the full realization of internal reality and violate the nature of man, impairing the very foundations of our existence. The interconnection between goodness and truth can no longer be disregarded, and the beauty of moral character can only be restored by atonement.

Once more, we reach here the boundaries of philosophy, for atonement, like repentance and forgiveness—all of them implied in the term “sin”—definitely transcend the scope of philosophical thought. Nevertheless, a corresponding gap can be discerned there. We probably all believe that we can learn from wrong-doing, but if we are to do so—not only in an abstract way—the wrong must first be expunged by transforming our lives. Failures and crimes are facts which cannot be undone; society may withhold punishment, but the exercise of this kind of human forgiveness does not touch upon their roots. On the contrary, it is most dangerous if such forgiveness is overrated and crimes—for instance because of their psychological motivation—are not called crimes; for this undermines all clear distinctions in the moral sphere. A murder remains a crime, even if the murderer, in special circumstances, may count upon our understanding, and even if this understanding may help him better than punishment could to readjust himself to society; moreover, he will be unable to find inner peace without distorting his character unless he faces his deed as a crime. This is an extreme example, but the same applies to any wrong action in the moral sphere which is bound to awaken serious remorse. But if we are thus constantly led back to the deed which cannot be undone there seems to be no way

out. We have to realize that we have sinned, for only as sin—which touches upon those spiritual spheres from which grace emanates—can wrong-doing be fully forgiven.

Christian teaching says that we can grow beyond obedience to the law into the freedom of the gospel, by becoming the children of God. This emphasizes the existence of freedom without which it would be impossible to conceive of sin. If we realize that we have sinned, we are robbed of all the excuses based on some kind of determinism; sin presupposes full responsibility. But it may seem startling that in Christian teaching the law—that is, the moral law—is seen as an inferior alternative to freedom. Yet the moral law would be impossible if it were not itself based on freedom. Again we can elucidate this contradiction by facts which are disclosed by our knowledge of internal reality.

Freedom exists for us in two forms. If we are free, we must be free to choose, but we can either make a choice which really sets us free or a wrong choice which enslaves us again. We have said that freedom means acting in full accordance with our true nature, so that it can find its full expression; if we choose, for instance, money or power, this choice enslaves us, because it forces us into actions which are contrary to our true nature; the stronger it becomes the more impossible it is for us to give anything else in our nature other than rudimentary expression. We can become free only by acting in accordance with the demands of internal reality—that is, we must not only choose, but also choose correctly.

The more obvious of the two forms is freedom of choice; the other is only open to us once we have chosen correctly. We can call these two forms of freedom “freedom of choice” and “the realm of freedom”. In the realm of freedom, however, something rather paradoxical happens; freedom means there that we are also under the compulsion of a strong inner necessity. This is what is meant by the freedom of the Gospel. According to Christian teaching the law, which has to be chosen, is not sufficient because so long as

we choose laws we can disobey them; whereas if we choose the realm of freedom we can only remain in it when it becomes so real to us that we are completely unable to act other than in accordance with it. It is this paradoxical situation which arises, in fact, when morality has become the outcome of love—so making it part of the realm of freedom; morality, then, presupposes our freedom of decision, yet renders us unable to decide for anything which is against the moral law, because we have become entirely dependent on it. But how can freedom be reconciled with this utter compulsion?

It will not have escaped the reader's notice that we have had to refer to contradictions and oppositions many times. At the beginning, we tried to indicate how the contradiction between scientific theories and personal responsibility could give us new insight, and in the same context we mentioned the opposition between external necessity and freedom. In the last paragraph we encountered yet another opposition, that between inner necessity and freedom. Opposites are inherent in human awareness. The division into two realities, which is fundamental to all we have said, is brought about by the self being opposed to everything it perceives outside itself. Clear recognition of external and internal reality remains dependent on our opposing each to each again and again; neither of them is "the reality" nor simply different parts of reality, but both in turn are produced by our approach, and according to that approach any part of the whole of existence can be included in either. Thus, to recognize them, we must establish their opposition in every impression and experience. Neither can become entirely independent of the other; external knowledge depends as much on the laws of thinking as internal reality on external embodiments; we have to see them in contrast to be able to separate them clearly. When discussing feeling, we described the opposition between single emotions and feeling as an organ of knowledge; in the realm of values we had to pay attention to positive and negative values. We

have never attempted to gloss over these opposites—not even when discussing mind and matter—but, on the contrary, emphasized that they have to be accepted; only if we see opposite extremes, we have said, can we remove the dangerous striving for the impossible unitary explanation of all our experience—dangerous because it must needs distort it. We shall not otherwise succeed in producing the unity where it can alone become real. The unity cannot be explained nor translated into words, it can only be experienced through feeling; and, after all, the desire for, and expectation of unity has its origin in feeling.

If we now take up this line of thought, we can see its full justification and significance, and by considering in more detail what is involved in this phenomenon of thinking we shall be in a position to elucidate further elements of faith.

All our thinking is based on opposites, for only with their help can we become clearly conscious of anything whatever. Life itself is somehow experienced as a unity, but the emphasis is on the “somehow”, for our impressions and experiences of this unity are mostly blurred and either confused and confusing or mysterious and bewildering. Thinking, after all, is (or should be) used to produce clarity, and that this is done with the help of opposites can be seen even if we restrict ourselves to giving only a few examples.

In external reality our knowledge begins with sense-impressions. At first it may be thought that they are independent of any opposition; a dazzling light, for instance, will produce an overwhelming impression of brightness which is nothing but bright. But we shall be unable to discern any object—in fact, anything at all—unless the dazzling light is limited with the help of darkness; the contrast between light and dark is necessary to enable us to perceive boundaries; and we shall also be unable to develop a clear conception of brightness without opposing to it the concept “dark”. Without any darkness we should not notice brightness, just as we usually, experiencing no such contrast, do not notice the smell of air. This applies to all qualities,

such as hard and soft, strong and weak, heavy and light. It is true that there are scales of, say, heaviness alone, but these are applied by opposing an accepted unit to the weight of different objects. Objects in general are mainly described by their qualities, but further opposites are added; we do not know an object unless we know its form and content (its shape and the matter of which it consists); we distinguish between inanimate and animate matter; and we must contrast filled and empty (or comparatively empty) space to recognize its boundaries. Opposites are even more essential when we describe events; we need the opposition between cause and effect, between a force and something upon which it works (that is, between energy and matter), between motion and rest. Again, our ability to observe is entirely dependent on opposites; we do not notice the movement of the earth because we move with it.

The indispensability of opposites is only thrown into relief when we finally arrive at scientific explanations. The difficulty which we have mentioned of understanding modern physics is due to the fact that opposites have become so prominent that utter contradictions have to be accepted without our being able to reconcile them. Light, for instance, is explained by the two contradictory assumptions that it is a wave-motion with no matter involved, and that it consists of material particles moving in a straight line across space, and similar formulæ are applied to electrons. For the theory of relativity, the space is both infinite and limited; again a pure contradiction. In this theory it is particularly conspicuous that the working of our mind enforces the application of opposites. The theory shows, as we have seen, that everything is relative and there is no means of ascertaining anything absolute. But the theory is based on an absolute, on the speed of light being both constant and the greatest possible, for relativity can only be recognized in contrast to something absolute. There are, it is true, also attempts to abolish opposites; the theory of electrons dismisses matter by explaining it as energy, but

then the electrons are gathered together again in quanta and fields; it is easier to renounce understanding than opposites. After all, these theories are based on mathematics, that is, numbers; and numbers are based on the opposition between the One and the Many; it is only when we recognize that there are both single units and more than single units that we can count.

The opposition between the two realities is exemplified in such fundamental opposites as necessity and freedom—which apply to both realities. These, apart from their purely abstract meaning, have also a different meaning within each reality. So far as the opposition between necessity and freedom applies to the two realities, it is most easily understood in our own experience; there would be no such concepts if we were either always under compulsion or always free; it is again by their contrast that we know both. Applied to external reality, necessity means all-inclusive necessity; it is, as we have seen, presupposed in external thinking and freedom is ignored. Yet we are certain of the existence of freedom by virtue of our personal experience of it. Thus necessity is characteristic of external and freedom of internal reality, but this opposition is insufficient to characterize the external and internal forms of either necessity or freedom; further opposites have to be employed. Freedom cannot be discovered in external reality, but necessity has still to be made distinct by envisaging an opposite; necessity, therefore, is here contrasted with contingency, and thus the opposition is between the necessary and the accidental. In internal reality both necessity and freedom are experienced, but in this case we must distinguish freedom from mere licence or arbitrariness, and to this end the opposition of external compulsion is insufficient, because the antithesis is freedom of choice which includes both licence and freedom. The realm of freedom is only seen against a further antithesis—inner necessity, so that this contradiction, even if apparently paradoxical, is necessary to our understanding of freedom in its most advanced form,

because that is how our mind works. We obviously should not try to remove this contradiction, but accept it and base our thinking on it.

In internal reality, the need for opposites has been obvious. When speaking about feeling, we automatically contrasted pleasure with pain, joy with sorrow. Moreover, we have had to oppose feelings to their objects and different kinds of feeling to each other. We have said that all values are positive and negative and that the negative ones must not be overlooked. We have opposed knowledge to faith, external compulsion to inner necessity and one form of freedom to the other; to speak of internal reality at all, it is necessary to use opposites in this way.

It is true that these opposites are seldom clearly seen; while, in external reality, we regularly use opposites without paying much attention to them, we frequently experience internal reality as a vague mixture of all kinds of contradictory thoughts, feelings and urges. But we ought to clarify our experience by finding the appropriate opposites, for otherwise we easily succumb to the temptation of defining and confirming prejudices by means of condemning whatever is opposed to it. Our just cause seems the more just when it is attacked. We need opposites in any case; if we do not become aware of them in our minds, we project them outside ourselves, seeing the world as divided into black and white, which then only requires that we say "Yes" or "No" to it, thus splitting up our feelings in that dangerous way to which we have referred. Instead of making internal reality real, we cover up the discord and lack of balance within ourselves by subordinating a simplified picture of the whole world to our own condition. To avoid this major road to fanaticism, there is no alternative other than to grasp internal reality with the help of those opposites which enable us to understand it.

Opposites always become utter contradictions when we try to describe our most profound experiences. A work of art, for instance, though a complete unity, cannot be

explained by any single cause or principle, and in so far as we are able to describe it, we can do so only with the help of irreconcilable contradictions. If it approaches perfection, it is conditioned by the period of its creation and yet valid far beyond it; to remain alive, it must be firmly rooted in its contemporary world and yet transcend any temporal bondage. Any great work of art is, at the same time, national and supra-national, tied to both nationality and humanity; although unique, it expresses general experiences and principles. It is conditioned by particular gifts and by intuitions which can be neither willed nor taught, and by conscious intentions and endeavours; its technique is formally accessible to intellectual thinking and teaching and is, at the same time, the direct and inexplicable expression of feeling, the unmistakable "handwriting" of the artist. And so we could go on describing it. In the visual arts, it has entirely become part of external reality, so that it can be grasped with our senses, and is, in spite of that, the symbol of purely emotional or spiritual experiences, an expression of internal reality. In short, a work, though unique and confined within narrow limits, a strange and very tiny particle of the universe, becomes in spite of its limits and its peculiarity the most complete embodiment of the essence and wholeness of existence.

The strongest experience of unity we know is certainly love. But true love is love between two beings, the response of an "I" to a "Thou", as Martin Buber has called it. Vague feelings such as romantic love (being in love with love) which we have mentioned are only paltry substitutes. Even love of God requires two entities, man and God; the human "I" responds to the divine "Thou"; God becomes a "Thou", without which to love Him would be impossible. Thus, though the essence of love is unity, its condition is separateness; in perfect love the contradictory aspects of unity and separateness co-exist.

In both external and internal reality, then, the application of opposites can lead to complete contradictions, but

again there is the same difference in kind as that which we noticed when comparing "the absolute" in physics with the absolute values. In physics these contradictions contribute to great achievements but cannot themselves be understood; in internal reality they contribute to greater understanding. In fact, opposites and contradictions are the only way of giving expression to those experiences which touch upon spheres which can be neither fully known nor translated into simple concepts; they could not be expressed at all without contradictory opposites giving us an indication of their scope which transcends any possibility of their being grasped directly. Intuitions and inspirations, the "glimpses of the absolute" and revelations are only made accessible by this kind of thinking which I have elsewhere described as "thinking in opposites".¹ If we know how to think in this way, it provides a means of giving precision and clarity to these glimpses without narrowing them down or falsifying them. We must drive our thoughts into opposite extremes of which we must remain simultaneously aware, so that, by the tension produced by their contradiction, the inexpressible is experienced.

This applies to both philosophy and religion. We have seen this thinking at work when trying to understand grace and revelation in a philosophical way. Then, we had to abandon the simple idea of a direct connection between cause and effect and think of our activity as being at the same time required and yet unable to produce the effect. Even our participation which, after all, must be our own activity cannot be willed but must be awakened. We have to knock at the door of the spiritual world, but it has to be opened for us, which must mean that it need not be opened in spite of our knocking or may be opened without it, and yet we have still to knock. It is only by these contradictions, however, that grace can be understood, for otherwise it would be the necessary effect of a definable cause. The

¹ For a fuller explanation see P. Roubiczek, *Thinking in Opposites*, London, 1952.

interaction between repentance and forgiveness is practically the same. We must repent, but forgiveness is in the gift of God and is not an automatic effect. Nor can freedom find its fulfilment in inner necessity without, on the one hand, our acceptance of the order of law and, on the other, our transcending it by grace. Similarly, we have mentioned before Kant's opposition between "the starry heavens above" and "the moral world within", between our smallness compared with the universe, which destroys any significance we could claim, and our moral nature which gives substance to that claim. To feel what existence really means, we must neither minimize nor try to remove the contradiction between these facts, but admit that they cannot be reconciled; we must allow contradictory thoughts to make their full impact upon us.

The Christian revelation abounds in such contradictions, the clearest example probably being the equal emphasis on judgement and grace. If we want to understand Christianity, both have to be accepted, though, again, they form a complete contradiction. If each single individual is important, as Christian teaching claims, our deeds must necessarily be of real consequence, and they only have consequence if they are judged. The grace of God, however, cannot possibly be limited; any kind of limitation or restriction of power cannot be reconciled with the Christian conception of God. Moreover, as we have said, grace cannot be determined by a particular cause, which also means that it cannot be limited by our deeds. These contradictory thoughts are the last boundaries to which our logical thinking is able to advance; they do not give any explanation whatsoever. But we are meant to think of both grace and judgement at the same time in spite of their contradiction; for if we stress judgement alone, God will no longer remain the God of Love, and if we stress grace alone, how can it matter what we do or whether we try to become worthy of this love? If we remain aware of the contradiction, feeling will gradually disclose to us a new harmony. If we are in despair about our

sinfulness and weighed down by our sins, the knowledge that the judgement rests not with us but with God can be experienced as redeeming grace; if we are hardened and unaware of our sins, a sudden insight into what grace really means reveals our sins to us in their full significance and thus grace is experienced as severe punishment. We are no longer in danger of reducing our experiences or the conception of God to mere abstract notions, but experience in the unexpected harmony of these contradictions the mystery which is at the core of a living faith.

The problem of predestination is similar. If God is all-knowing, our destinies must be known to Him from the beginning, and cannot be further determined within the relative framework of space and time within which we live and see our lives. Hence belief in predestination. But this belief, taken by itself, is empty, for it would imply that God in saving man made a meaningless gesture, since it must already have been predestined which individuals were to be saved and which condemned. Moreover, if a man's responsibility for his actions is not to be taken into account the selection would be completely arbitrary. Predestination cannot waive aside the opposite fact that, if individuals matter, our lives must be of consequence and cannot, therefore, be completely determined, not even by a necessity of a religious kind. Unless our choices and deeds have influence, nothing we do can be taken seriously; we have no responsibility and, in the last analysis, even to take reasonable precautions to preserve our lives is futile and of no avail. Predestination, in other words, cannot exclude freedom of will, and it is by this opposite that we once more gain an experience of those spheres of reality which transcend knowledge and are accepted in faith. In both these conclusions we again reach the farthest boundaries to which our thinking can penetrate, and the acceptance of these contradictory thoughts can once more help us to experience what otherwise could not be expressed by language at all.

Nevertheless, although thinking in opposites shows much

common ground between knowledge and faith, their fundamental contradiction must not be overlooked. It can be seen most clearly where knowledge itself approaches the absolute—in the sphere of the absolute values.

When we discuss the absolute values we must do so in terms of true and false, good and evil, beautiful and ugly; but if their realization really leads to a meeting with the absolute, we experience the positive value free of intellectual concepts, transcending all opposites. We experience, in and above all absolute values, pure goodness which then appears to us totally different from that goodness which we define by its opposition to evil, for it merges with perfect love. Love, too, if we want to define it as a feeling we have to see in opposition to hate or indifference; it also presupposes love between two beings; and yet we feel that, in its highest form, it can be nothing but itself and all-embracing. We have said that we are able to reconcile but not cancel extreme opposites, through a response which unites both in the sphere of feeling, thus enabling us to experience the otherwise inaccessible unity of all existence. We might expect that the opposition between good and evil would produce a similar unity within feeling in an experience of perfect goodness or love, but this is not the case. Good and evil (like all positive and negative values) involve our judgement, and where that is demanded the mind must find in favour of one or the other and thus the unitary feeling cannot arise; indeed it must not arise lest it blur our judgement. On the contrary, the knowledge of evil can cut us off from any unitary feeling; its existence remains an insoluble problem, a source of despair rather than of reconciliation. It is not for us to experience unity in this case, for we have seen that greater sensitiveness to goodness makes us more sensitive to evil, and it is only when evil causes us to suffer that we gain a full realization of goodness. In spite of this suffering, however, goodness fully realized appears as independent of both suffering and evil.

Faith, too, like knowledge, offers no solution to the

problem of evil. Even those who have faith will be led to question again and again in despair why evil should exist and why God has created man in such a way that he goes on adding evil to evil—by wrong-doing and hate, by crimes and wars, by callousness, pettiness and cruelty. Faith does not save a man from suffering nor diminish it by enabling him to see the reason for evil. On the contrary, to have faith makes a man more prone to suffer, because only the faithful can accuse God, and only they can lose their most precious possession—faith. Yet faith transcends all opposites in a way which is entirely barred to knowledge.

The most fundamental of all oppositions is that between external and internal reality, and since even consciousness, the condition of any thought, only becomes possible through this primary opposition, knowledge can never transcend it. The two realities, however, are only aspects of that unitary reality which is revealed to us in faith. Religion, therefore, must needs transcend both external and internal reality and heal the division of reality. This is done by the revelation of facts which cannot be known to us (except by revelation) and which are different from all other facts we know because, while they are part of external reality, at the same time they disclose their meaning directly. We need not, by any evaluation or similar activity on our part, discover their meaning in terms of internal reality, because they already carry significance of this kind. Any religious revelation is based on such facts; Christianity, sparing with metaphysical revelations, emphasizes historical events instead; the resurrection, for instance, is a clear example of identity of external event and meaning. Even so we are not released from thinking in opposites; we have to see the facts as external and their meaning appeals to that understanding which belongs to internal reality; yet we also experience the unity of the two realities directly because facts and meaning are one (which could never be said of any other kind of external fact). The true act of faith, therefore, is characterized by the acceptance of these facts, not merely as

symbolical expressions of internal reality, but as real objects or events, inexplicable or even impossible as they may seem to knowledge. It thus accepts the unity which cannot be known.

Truth, for the Christian, is centred in the existence of a personal God. This is the supreme fact of all revealed facts, whereby, moreover, God is revealed to be perfect goodness and love. Thus truth points beyond the reconciliation of opposites in feeling (our nearest approach to the unification of reality achieved by thinking) and beyond the absolute values (which are themselves transcended by pure goodness and love). So that, once again, as with the instance of the resurrection, the emphasis is on an unexplained fact which we are asked to accept. Faith, based on inexplicable facts, transcends reason, but is not contrary to it if reason is willing, not to reign, but to serve.

When belief in God, as a spiritual reality behind this world, is independent of any particular revelation, it is based on the realization that the reality which we actually experience transcends reason. Apart from mysticism, which emphasizes direct experience of what is inexplicable and beyond reason, this belief usually takes the form of pantheism—that God is in everything and everything in God. It dismisses the idea of a personal God over and above creation which appears to modern man as the main obstacle to any rational explanation and full knowledge of existence. Yet pantheism is almost invariably coloured by the religious claim that God is good or even love. This, however, no knowledge could ever disclose; reality is not only characterized by goodness and beauty, but perhaps even more conspicuously by cruelty in nature, by the existence of evil, by the suffering of man. Great efforts are made to explain these inconsistencies; when reason fails, feeling is mobilized, not feeling as an organ of knowledge, but particular single emotions by means of which much in human experience can be disregarded. Spinoza, the founder of modern pantheism and a pure rationalist, was adopted as a model by the Romantic Movement, which transformed pantheism into

poetic nature-worship. The result is, as the history of pantheism shows, the disappearance of belief; for pantheism paved the way for the many all-inclusive metaphysical explanations of reality of the eighteenth and nineteenth centuries, and, in the end, for the all-inclusive scientific and materialistic explanations. The existence of God cannot be explained; if explanation is too much relied upon, belief has to give way even though the explanation is inadequate.

Christianity, on the contrary, insists on the inexplicable fact that there is a personal God who cannot be fully known, because He must needs transcend man infinitely. Thus the fact that He is, at the same time, both personal and infinite removes any doubt that there is something we must accept which can neither be explained nor fully understood. It is this insistence on the external fact devoid of any further explanation which, by its impact upon our experience, makes it possible to accept in faith the further revelation that He is goodness and love. Here, too, many philosophical and theological explanations have been attempted, but reliance on limited human understanding instead of the fullness of experience has only weakened faith. We thus get, as Pascal says, "the god of the philosophers"—that is, an abstract idea, instead of "the God of Abraham, the God of Isaac, the God of Jacob, the God of Christians"¹—that is, an inexplicable external fact. The result of postulating an abstract god is similar to that of the influence of pantheism. We must not dilute the fact, but see the meaning in what is revealed to us. Once more, we are not released from thinking in opposites; God is personal and infinite, loving father and severe judge; it is the only way of thinking which gives thought access to these spheres. But the opposites are focused upon an external fact, and it is again the full acceptance of this fact—God—that discloses, despite and through all opposites, the unity transcending them.

The same is true of the Cross. Its significance for

¹ *Pensées*, No. 555 (Everyman Ed.).

Christianity is revealed by extreme opposites; the crucifixion of Jesus is a terrifying catastrophe, the most torturing defeat of the spirit, yet the Cross is nevertheless a sign neither of tragedy nor of defeat, but on the contrary of the highest triumph of the spirit and the final expression of divine grace. It is essential, however, that the external event and all its details—the betrayal, the trial, the mockery, the beating and torture, the way to Golgatha, the nailing to the cross and the dying on it—are experienced in all their horror, without being irradiated by their later transformation. For it is only then that the complete defeat and abasement, the injustice, the appalling cruelty of man and his enjoyment of evil, the terrible agony and the unimaginable amount of suffering are felt in all their poignancy; and it is only then that the meaning of the Cross acquires its full power and profundity. We have to try to understand, by the impact of the external facts, what it meant for Jesus to shout, “God, my God, why hast Thou forsaken me”, to become fully aware of a unity in the glory and wretchedness of our existence.

If knowledge and faith are thus seen both as closely related and as wholly different from each other, the barriers erected against faith disappear. The barriers are based on the conviction that knowledge can become complete and so render faith unnecessary. But if we accept the limitations of knowledge and the distinction between external and internal reality, faith is recognized as necessary and knowledge can show the way towards it, even though knowledge and faith remain entirely different.

Supposing, however, we agree to see the task of the philosopher in this light, we must be ready to accept the conclusion that it is more modest than it was considered hitherto, and it may appear to lose much of its importance. For it can only be a constant activity without itself producing final results. The philosopher has to establish oppositions again and again, particularly whenever he seems to have reached a result; he has to drive his thoughts towards

the farthest boundaries only in order to recognize these boundaries. His main task, in fact, is to prove that a knowledge which is both comprehensive and absolute is impossible, and he is therefore obliged to leave this greater achievement to a faith which remains outside philosophy. Can such a resignation really be demanded from him, without destroying the significance of his work altogether?

To consider philosophy, because of its limitations, as being diminished in importance is feasible only so long as we cling to the prejudice that knowledge can be all-inclusive. It is true that a certain resignation of authority is necessary; we have to give up the hope of ever creating an all-inclusive unity and this may appear as a painful loss; but it is this very resignation which makes philosophy much more fruitful. As we are bound to think in opposites, to do so consciously and systematically will help us to make the best possible use of our thinking. We shall no longer attempt the impossible; we shall not pretend to give a complete explanation (which must falsify our experience and sooner or later break down); instead we shall be able to transform thinking into a constant activity without trying to arrive at final results. This activity can become part of our lives and contribute to a full life, for the disclosure of the opposites we actually employ, leading to the opening up of deeper layers of reality through the recognition of further opposites, produces an enrichment of experience. Thus we shall no longer be forced to disregard what we really know or experience or feel, however contradictory it may be, but shall be able to find our way towards the unitary feeling, towards the absolute values, towards faith which, after all, requires the constant renewal of the act of faith. We can neither replace nor enforce intuition or grace or forgiveness, but we can gradually understand the accumulated wisdom which is part of every religion and which today is so easily dismissed as "purely religious". We can at least learn how to knock at the door of faith, and even though the door cannot be opened but by grace, the knocking which brings us face to face with the absolute is

more rewarding than the denial of all those precious experiences which come within the orbit of faith.

That our knocking is required is confirmed by the fact that religion can benefit from this thinking too, for with its help we can include a problem in philosophy which could not be tackled otherwise—the distinction between right and wrong beliefs. We obviously need some kind of belief; we have seen that even the sciences, apparently based on external facts alone, accept presuppositions which must be believed. If, however, we cannot dispense with belief, what can be more important than to be able to distinguish between right and wrong beliefs? The most absurd and disastrous teachings, as our age has shown, are believed most fervently; any faith, therefore, can be seen as meaningless so long as we remain unable to counter errors in this sphere. It is true that faith remains outside philosophy, but if feeling is included, if evaluation is properly developed, if internal reality is known and taken into account, the scope of error can be considerably reduced, and we can discern the right direction of thinking which excludes those errors which have fatal consequences. The act of faith cannot and must not be eliminated, nor its risk abolished; the external facts revealed by religion remain essential; but revelation can be distinguished from mistaken claims to absolute knowledge, claims which can be seen at work in all the various kinds of fanaticism.

Religion can also benefit in a more direct way, for it has not been free from fanaticism either, and theology has far too frequently been based on the wrong kind of philosophy. There is no theology which is not exposed to the influence of philosophy. So long as the philosophers were preoccupied with metaphysical systems, many theologians attempted to transform Christianity into such a system, into an all-inclusive explanation, thus undoing one of the greatest strengths of the Christian doctrine. In particular, they took up (under many guises) Leibniz's statement which summed up the attitude of the Age of Reason—that God must have

created "the best of all possible worlds"—and supported it with nineteenth-century belief in progress. As a reaction, others demanded the sacrifice of reason or, with Kierkegaard, "the absolute paradox"; and this, though often a healthy reminder of the place of faith (perhaps especially for our age), made religion one-sided, over-emphasizing judgement and sin at the expense of grace and forgiveness.

If philosophers, having dismissed metaphysical systems, could avoid the two blind alleys of purely logical analysis and pure irrationalism and show that the correct way of thinking points towards faith, theologians could realize better how to defend themselves against wrong thinking, and how to make us experience the impact of the revealed facts without dismissing thinking which, in any case, both they and philosophers are bound to employ.

In short, philosophy transformed into thinking towards religion will make sure that religion finds support in the right kind of philosophy.

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